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GENERAL DYNAMICS

Convair Division

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PROPULSION SYSTEM

AIRBORNE

DIFFICULTIES REVIEW

OF .

Distriction of the second

GENERAL DYNAMICS SAMSO TR-76-176 Issue Date: 15 August 66
GDC-BRW66-Ø13-EK-2-Vol-12
DIFFICULTIES REVIEW ATLAS BOOSTER AIRBORNE AND GROUND SUPPORT SYSTEMS.
GE. ERAL INFORMATION - VOLUME XII -
Propulsion System Airborne Difficulties Review.
CONTRACT AF#4(695)-710 ACCUMANTAL TO THE PARTY OF THE PA
Per Hx. on file
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Approved by
B. B. Shaffer Chief of reliability Engineering

Approved for the read,
Distribution Unformed

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BOOK II - DIFFICULTIES REVIEW - AIRBORNE CONTAINS THE FOLLOWING VOLUMES

VOLUME I AIRFRAMES

*VOLUME II ABORT SENSING AND IMPLEMENTATION SYSTEM

VOLUME III AUTOPILOT

*VOLUME IV AUXILIARY POWER SOURCE

VOLUME V ELECTRICAL

*VOLUME VI GUIDANCE

VOLUME VII HYDRAULICS

VOLUME VIII INSTRUMENTATION

VOLUME IX PNEUMATICS

VOLUME X PROPELLANT UTILIZATION

VOLUME XI PROPULSION INTERFACE

VOLUME XII PROPULSION

VOLUME XIII RANGE SAFETY COMMAND

*VOLUMES II, IV AND VI UNDER ONE COVER.

GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTR) and UTP. The factory difficulties are limited to "selloff" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights, flight readiness firings, actual countdown dual propellant loading, quad tanking, component reliability testing, and flight acceptance composite tests. Difficulties called out in the search for critical weakness program was not documented.

GSE problems shall be limited to ETR Complex 12, 13, 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained.

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system. under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

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DIFFICULTIES REVIEW PROPULSION-AIRBORNE

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Drive Shaft Accessory

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Fitting, Tank

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0077.

0082.

GENERAL DYNAMICS

Convair Division

Subject:

Explanatory Information For Use of Difficulties Review (DR)

Data Tab Runs

This information has been prepared to facilitate use of the <u>DR</u>. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data 5 rocessing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the abstract number. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages cond for reference to the following definitions and explanations:

CODE EXPLANATION

(1)

This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty.

In the same row, the <u>site</u> location, and in case of a flight, captive flight, or countdown, the time will be entered.

The block containing PRI and OTH refer to whether or not the failure is <u>primary</u> or a <u>secondary</u> failure. A secondary failure is to be interpreted as caused by another discrepancy.

The last block in this row is obvious and requires no further explanation:

- Refers to a major system of the launch vehicle.
- Refers to subsystem of a major vehicle system if applicable, (Booster, sustainer, etc).

GENERAL DYNAMICS CONVAIR BIVIBION

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	DIFFICULTIES REVIEW-BUIDANCE STRICK-ALABORNE	IDANCE STRIEM-AIRBORN	Ų.			
#7 #7 # # # # # # # # # # # # # # # # #	TEST/REPORT NUMBER FAILED COMPONENT HAME	DIF DATA SCURCE PART NUMBER	VEHICLE DATE DIF	11 ME 01F	PRI YENDOR MANE OTH VENDOR PART NO	
YENICLE EFFECT-COMMIDGEN	DOM ABORTED.					
CORRECTIVE ACTION-DECODER	N NEPLACED.					
CUIDANCE-GE MOD 1111-A/B OCCODER	AR141-0-107/FC-4CO-01-107 DECODER	COMPOST TE-PACTORY	1070 62 0107	FACTORY	YEB GENERAL FLECTR NO 10 784198861	1
FAILURE MODE-PREMATURE OF MS WHENCHER WAS APPR	E OPERATION-DECODES RELATS 1 AND 2 WERE ACTIVATED THROU APPLIED TO THE DECODER-THIS WAS A MODEL IIIA TYPE UNIT.	ERE ACTIVATED THROUGH DEL IIIA TYPE UNIT.	THROUGHOUT THE TE	81. THE	TEST. THE RELAYS WERE ACTUATS	
SYSTEM EFFECT-IMPROPER DI	SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-DECODER OUTPUT COMMANDS APPEARED WITHOUT INPUT MINMEAL.	HANDS APPEARED VITHO	of Items	TIMEAE.		
WENTELE EFFECT-COMPOSITE	WENICLE EFFECT-COMPOSITE DELATED. ADDITIONAL SYSTEM TEST REQUIRED.	REGUINED.				
CORRECTIVE ACTION-THE DE	CORRECTIVE ACTION-THE DECODER WAS REJECTED AND REPLACED.					
GUIDANCE-GE NOD 111A-A/M DECODER	AA81-0118/P4-4CO-01-86 DECCDER	COSTOS ITE-B FACT	660 610607	14/ETR	YES GENERAL ELECTR NO 10	003870
FAILURE MODE-FAIL TO OPEN	OPERATE AT PRESCRIBED TIME. DURIMG FACT, DISCRETES 1 AND 2 DID NOT APPEAR AT DECODER CUTPUT.	ACT, DINCRETED 3 AND	R DID NOT	APPEAR A) DECODER CUTPUT. C	
STSTEM EFFECT-INFROPER DI	DIBCRETE BIGMELS.					
WENTELE EFFECT-COMPOSITE DELAYED.	DELAYED. TEST DELAYED TO REPLACE DECEMENT AND PULSE BEACON.	DECEDER AND PURSE BE	ACOM.			
CORRECTIVE ACTION-REPLACE	E DECCOER AND PULBE BEACON.					
SUIDANCE-SE MOD IIIA-A/B DECODER	AE60-0811/FC-4CO-02-077 DECCDER	COMPOSITE-FACTORY	770 600900	FACTORY	NO SEMERAL ELECTR NO 1C	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBEL TO FAULTY NEBANGE BYRUCTURES IN THE C. O.	RATE AT PRESCRIBED TINE-STABING LOCKOUT AND ETAGING DISCRETE SIGNALS WERE NOT GENERATED DUF UNEE IN THE C. O. T. B. (AGE).	OCKOUT AND ETAGING DI	SCALTE SIG	HALB NEW	HOT GENERATED BUF	
SYSTEM EFFECT-INFROPER DISCRETE SIGNALS	ISCRETE STOWERS					
WENTELE EFFECT-COUNTDOM	WENTELE EFFECT-COUNTDOM ON COMPOSITE DELAYED OR RE-SCHEDULED, POST-COMPOSITE TESTING MAS RESULRED	MED. FOST-COMPOSITE	1E37116 14	S REBULK	À	 .
CORRECTIVE ACTION-NEBBAGE	E REGISTER WAS REPAIRED.					
GUIDANCE-SE MOD IIIA-A/B DECODER	DECORA 5842-8/P4-4CO-02-45	CONFCATTE-J FACT	450 600311	14/ETR	YES GENERAL ELECTR NO 1C GODGOSCORE	
FAILURE MOCE-ERRATIC OPER ONL ONL	OPERATION. BURING INTERPOSATION OF DECOMER, IT RECENDED TO THE DIFFERENT ABORESALS WHEN IT MET TO OME.	COOLS, 17 RECEMBED	70 DH 01F	PERENT AL	ORESSES WHEN IT SH	
					i	

PAGE 0077

GENERAL DYNAMICS

Convair Division

CODE	EXPLANATION
•	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
567	Is a type of report, such as a FAR, UTP, FRF, etc.
6	Refers to a component part by name.
	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
8	Is a GDC part number, if applicable.
(8) (9)	Refers to a site or location at time of discrepancy on the component or vehicle system.
10	Is the vehicle on which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
11	Is the vendor part number, if applicable.
12	Is the vendor name, if applicable.
(12) (13)	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
14)	Refers to the primary failure. If item is labeled no, then item (13) may appear as a yes.
	Should item (13) appear as a <u>yes</u> , then an abstract will have been written to identify the cause of failure effecting the component referred to in the Difficulty Review, Item 6. It should be noted that a multiple failure may be recorded in these blocks, (yes/yes), or if a

Defines the failure mode, and if identifiable, the cause is called out.

A careful review of the failure mode is made to determine effect on system operation and vehicle effort.

failure did not occur, (no/no).

GENERAL DYNAMICS

Convair Division

CODE EXPLANATION

- Defines the system effect. This effect is we result of the failure mode assigned to the component.
- Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect.

 It should be noted that corrective action may be taken whether or not the failure was confirmed.
- Lists the corrective action. Taken by GDC, the ver.dor, or both.

2 Ø 10000 : 7 TEHICLE BITC PAIL VENDOR MANE BATE BIT THE BIT OTH VENDOR PART NO FAILURE MOCCOUT DE-SPECIFICATION. BAN 408-8418, PEAR TRANSTENT PRESSURES WERE 4188 TO 4888 PBIS, ALLOWABLE IS 4888 PBIS, ALLOWABLE IS 4888. PBIS, MO-ECOT TO FULL PLOW THE 18 0-137 BECOMDS, ALLOWABLE TIME IS 0-89 BECOMDS. COMECTIVE ACTION-BEPT 141-3 TO PERFORM REYERS ON TWO (E) ADDITIONAL UNITS PRON LOT 43, TO BETERMINE LOT ACCEPTABLE
111 AND PROVIDE COMPARISON DATE. 161 13-46181-18-BA CORRECTIVE ACTION-VENDOR REVIEWED BTOCK OF O-RINGS AND INFORMED THEIR PERBONNEL OF CORRECT BEAL INSTALLATION PROCED UMES. PAILUME MODE-LEAR ERTERNAL, PUMP WAS REPORTED LEARING AFTER MOT FIRING TEST. CASE WAS OVERPRESSURIZED CAUSING DAMAS MO VICAERS VES AA-80884-R-2A NO AA-60664-R-EA TEB VICACABA-A-EA FAILUME MODE-LEAR ENTERMAL. GIN 201-D416 PAILED TO NEET CASE ORAIN LEARAGE REGUINENTD OF 8.6 OFW DUNIMA PAY-LAT. This unit also failed to NEET PEAR TRANSIENT PRESSURE REGUINEMENTS. NETER TO PPR-4801. PALE 0171 8 PAILURE MODE-LEAR-TETERNAL-CONTINUOUS OIL BEFRACE MAB OBSERVED DURING CHECKGUT. CAUSED BY DEPECTIVE SCAL AY PURE ANSE PROFEED SCALES ANSE PORTS. - CONTECTIVE ACTION-NO CORRECTIVE ACTION ACCOMMENDED BINCE DANAGE OCCURATED DUE TO INADVENTENT OVERPRESSUALIZATION ME PUMP. TEB VICACAS CONVAIR CONTAIN FAC FORY 6071-01 **** 641003 1150 CORRECTIVE ACTION-SUBMIT ECP 7659 TO REVISE TEST RESUIREMENTS TO PRACTICAL LETELS. DIFFICULTIES SEVIEW-HTBANULIC STRIEM-AIRBORNE DIF DATA BOUNCE 1-00000-1 1-00100-18 1-96100-13 47-00100-1 1 210-013 UTP-PRI SEMERAL DYNAMICS CONTAIN DIVIDION PAILED COMPONENT NAME SCOSTER HYDRAULIC PURPISCAL MYDRAULIC PUMPZERAL MYDRAULIC PUMP DL V-A9-10-269F 4041010.5 HTBEAULIC FUND T. Trassit E TO CABE COWER BEAL. 1711 EPPECT-HOME M9-1116H 11 721 1111 8767EM MYDRAM IC-A/B HI JAME IC-A/B HTDALELIC-A/B 8008168 BOOS FEA **M31400** 4 (S) (V) 9 M I SEMERAL DINAMICS CONTAIR DIVISION

11 114 1166

DIFFICULTIES REVIEW-MYDRAULIC STRICH-AIRBOAME

1000 3174

100100 086480 ***** VEHICLE BITE PRI VENDOR NAME OATE DIP TIME BIP OTH VEHOOR PART HO FAILUNE MODE-OUT OF TOLERANCE. BOOSTER HYD ACCUM. PRESS MEABUR. MISP AND HYD. PUMP OUTLET PRESS. MEABUM MIP INDICAT ED AN IMITIAL MORMAL PRESS. RIBE BUT TO A LONGR (3339 PSIA) THAN NORMAL (3330 PSIA) PEAR AT E.S BEC. THE PRESS. THEN DECAYED TO ETEO PSIA OURING MENT 1.3 BEC. BPECIFIC CAUSE UNKNOWN BUT BYNFTOMATIC OF UNUSUALLY MEANY DENAMD ON EYSTE FAILUME MODE-LEAK. BI MTORAULIC ACCUMULATOR PRESSURE ERMIBITED NO PRESSURE DIFFERENCE BURING THE OIL EVACUATION ACE STATCH EFFECT-POSSIBLE CONTANINATION. ALTHOUGH THE FAILURE MODE INDICATES THE POSSIBILITY OF AIR IN THE BOOSTES HTD PATATEM CFFECT-OFCRATION TOO LOW. BOOSTER NYDRAULIC PRESS. LOWER THAN MORNAL FOR A TIME PERIOD OF -8.3 SEC TO 3.5 SE C. NO ABVERSE EFFECT MOTED ON SYSTEM PERFORMANCE. PAILUME MODE-PAIL TO OPERATE AT PRESCRIBED TIME. TEST WAS RUM WITHOUT BOOSTER ATGRACLICS SECAUSE BOOSTER MPU COULD CORRECTIVE ACTION-NOME. THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA. ទី ខ 2 2 COMMECTIVE ACTION-BOOSTER MPU MAND VALVE, MICROSMITCHES VS AND VI ADJUSTED TO MARE MIPER CONTACT. -32.5 3 101010 41000 1510 COMPOSITE - FRO / OPL DIF DATA BOURCE PART NUMBER MOT BE OPERATED REMOTELT. THIS MAS NOTED DURING AUTOFILOT PINAL ENECKS. P. LEAT COARCCIVE ACTION-BOODTER MYDRAULIC FILL AND BLEED PERPORMED. PAILED COMPONENT NAME BOC/BRF83-038/82-401-00-177 TEST/REPORT NUMBER 60C/BKF63-046/01-401-00-38 RUALIC STRIEM, STREM PERFORMANCE MAS BATISFACTORY. FTABBB7/FB-WO-01-0ACB AVSTEN EFFECT-OPERATION BOES NOT START. WHICLE EFFECT-HOME. VEHICLE EFFECT-NONE 149-111EK AT BIEM MYDRAULIC-A/B NTOBAULIC-A/8 HTDRAULIC-A/B 8003 TCR 8005 TCA

CORRECTIVE ACTION-MOME.

HTDRAM IC-A/B

1000 TEA

WHICH CPFECT-MONE.

69/C22mg1-013-Ba1047-/L4-7m0-01-71 Comf0417E-FR0/DFL 07

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GENERAL DYNAMICS CORVAIR DIVIBION

15 JUN 1966

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DIFFICULTIES REVIEW-PROPULATOR SYSTEM-AIRBORNE

STSTEM BUB-STSTEM	TEST/REPORT HUBER FAILED COMPORENT MANE	DIF DATA SOURCE PART HUNGER	VEHICLE DATE DIF	817E	VEHICLE BITE PRI VENDOR MANE DATE DIF TIME DIF OTH VENDOR PART NO	
PROPULSION-NAI-A/B	FTA4323/P1-203-00-9 81 PURG OVECE VALVE	نائر	96 56108?	11/678	7£8 00	700100
FALLURE MODE-FAIL DURING G. A. PUEL, LEAR TO SPRAY INT INVIES AFTER CUTOFF.	FAILUME HODE-FAIL DURING OPERATION. A BI THRUST CHAMBER FUEL INJECTION PURSE CHECK VALVE BID HOT SEAT, THUS ALLCHIN S. A FUEL LEAR TO SHRAY INTO THE THRUST SECTIONDURING ENGINE OPERATION. FIRE STARTED IMMEDIATELY AND LASTED SEVERAL M INVIES AFTER CUTOFF.	INJECTION PARKE ON	TED INCO	DID NOT	SEAT, THUS ALLOWING LASTED SEVERAL N	
SYSTEM EFFECT-MOME.						
VENICLE EFFECT-FIRE.						
CORRECTIVE ACTION-REPLACE	E VALVE.					
MOTUSION-NI-A/B BOOSTER	F745028/PE-304-00-08 BGG LOK VALVE	countroce	960 990715	12 / ETB	7£3 MO	***************************************
FAILURE MODE-OUT OF TOLERANCE. I DURING WENGER IGNITION PAGE.	FAILURE MODE-OUT OF FOLERANCE. A REDLINE CUTOFF OCCURRED DUE TO THE BGG LOX VALVE INLET PRESSURE BEING ABOVE REDLIN DURING VENIGER IGNITION PASSE.	TO THE BGG LOK VAL	W INCT	MESSURE	BEING ABONE REDLIN	
SYSTEM EFFECT-OFENATION TO M THE REDICINE CALL OUT THE	STSIEN EFFECT-OFENATION 100 HIGH. BUG LOX VALVE INLET PRESSURE HAS ABOVE REDLINE DURING WENDER IGHITION PHASE. UPO I THE REDLINE CALL OUT THE TEST CONDUCTOR INITIATED A CUTOFF.	RE INS ABOVE REDUS	Selena s	E MODINGIA	ENITION PHASE. UPO	
WENTOLE CFFECT-COUNTDOWN	WHICLE CFFECT-COUNTDOWN DELAYED RECYCLE TIME TO NIMITES MOLD 138 MINITES.	D 136 MINUTES.				
CORRECTIVE ACTION-CHINE	CORRECTIVE ACTION-CHAINE BGG LOW INLET PRESSURE REDLING TO HIGHDR VALVE SINCE PREVIOUS DATA INDICATED THAT A SATISF KTORY ENGINE START COALD BE OBTAINED WITH THE HIGHER PRESSURES.	SIGNER VALVE SINCE P	REVIOUR D	ATA INDIC	ATED THAT A SATISF	
PROPULS10N-141-4/8 B006 YER	FT45012/PE-30R-00-08 REGULATOR	7	86 980709	12/ETR -11	YES ROCKETOYNE	123640
FAILURE HODE-OUT OF TOLE LIFE WALVE. IT has CONCLUS BINILAR REGULATOR ACTION	FAILURE MODE-OUT OF TOLERANCE, OBSERVER CUTOFF (THIGE) BECAUSE PLITTP, BOOSTER LOR START TAIN PRESSURE WAS OVER RED LINE WALVE. IT MAS CONCLUDED THAT THE REGULATOR MAD LOCKED UP AFTER INLET PRESSURE APPLIED AT EDISINE START T-25 SCC. SINILAR REGULATOR ACTION OCCURRED DIRING P2-301-00-00.	SE P1177P, BOOSTER PAPTER INLET PRESSU	LOE START RE APPLIE	7AHK PRE D AT EDIE1	SSURE WAS OVER RED ME START T-ES SEC.	
BYSTEM EFFECT-OFFIATION TOO MIGH.	TOO MIGH.					
WENTELE EFFECT-COUNTDOM	WENICLE EFFECT-COUNTDOAN DELAYED. 27 MIN. TOTAL MOLD AND 8 MIN. 35 BEC. TOTAL RECYCLE LOSS.	UN. 35 BEC. TOTAL R	ECTOLE LO			
CORRECTIVE ACTION-PRESSUR	112ED AND VENTED REGULATOR.					
PROTUL 81 08-46 5-6 / 8 8008 TER	2C-7-EEG/PE-301-00-07 ENGINE RELAY BON, NELAY	P.I.WI	7c 9e031e	12/5TA	YES ROCKETDYNE YES	
FAILURE HOOC-FAIL DURING HOLE. OUTTER OF THE BODG P ELECTRICAL TRANSIENT INT	PAILUME HOCE-PAIL DUBING OPERATION, BOOSTER ENGINE BHUT DOMN PREMATURELY AT 12% SECONDS. POSSIBLE CAUSES MEDIC, CALTER OF THE BUSTAINER-VERHIEL CUTOFF BELIEVER OF THE SUSTAINER-VERHIEL CUTOFF BELIEVER OF THE MINISTER OF THE SUSTAINER-VERHIEL CUTOFF BELIEVERS AND THE TRANSFER OF TRANSFER ASSOCIATED WITH THE PREFEEDING B	BHUT DOMM PREMATURELY AT 18% SECONDS. POSSIBLE CAUSES CONSIDERED OPEN CONTACTS, OUTPUT OF THE SUSTAINER-VERHIER CUTOFF NETWORK AN WIRING OR COMMECTORS ASSOCIATED WITH THE PRECEDING R ITEMS.	SUSTAINE ATED WITH	POSSIBLE P-VERHIER THE PREC	CAUSES CONSIDERED CUTOFF NETWORK AN EDING E ITEMS.	

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GENERAL BYNAMICS CONVAIR BIVISION

18 JUN 1966

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

8731EN 846-373TEN	TEST/REPORT MUBER FAILED COPPORENT MANE	DIP CATA SOURCE FART NUMBER	WENTCLE DATE DIF	11 ME DIF	2 5	DATE DIF THE DIF OTH VENDOR PART NO	
STATE EFFECT-OFFIATION S' R AND WERHIER ENGINES. CAU LETION IN THE START TAINES.	STSTEM EFFECT-OFERATION STOPS FREMATURELY. SHUTDOMN OF THE BOOSTER EMEINES HAS FOLLOMED BY SHUTDOMN OF THE SUSTAINE R AND WERNIER ENGINES. CAUSE OF SUSTAINER SHUTDOMN MAS NOT DETERMINED. VERNIER SHUTDOMN RESULTED FROM PROFELLANT DEPLETION IN THE START TAINS.	BOOSTER ENGINES INS FOLLCINED BY SHUTDOWN OF THE DETERMINED. VERNIER SHUTDOWN RESULTED FROM PROPE	FOLLOKED SHUTDOM R	BY SHUTE CBULTED	\$ E	F THE SUSTAINE PROPELLANT DEP	3
WOICLE EFFECT-LOSS OF	WONCLE EFFECT-LOSS OF WINICLE STABILITY. WINICLE STABILITY WAS LOST WICH BOOSTER SHUTDOWN OCCURRED AND MAS PARTIAL Ly recained after booster jettisch. There was no stability during vernier-solo phase, hission failed.	THAS LOST MACH BODS	TER BHUTEK PHABE, HIS	MA OCCUR	8 8	MO MAS PARTIAL	
CORRECTIVE ACTION-INSTALLED AMBIENTS IN CUTOFF CIRCUITRE.	CORRECTIVE ACTION-INSTALLED TIME DELAY R-C CIRCUIT IN EMBINE RELAY BOX TO PREVENT INADVERTENT CUTOFF BY SPURIOUS TR MSIEDITS IN CUTOFF CIRCUITRY.	E RELAY BOX TO PAEV	ENT IMBM	NTENT CA	TOF P	87 SPURIOUS TR	
PROPILES ON-MAI -A/B BOOS TOR	2C-7-209/ BOOSTER LON RETERENCE RESULATOR	7.181	116 990204	11/678	38	ROCKETDYNE	001600
FAILURE MODE-OUT OF TOLER! NES. THIS RESULTED FROM A 1 LANDLINE POMER SUPPLY AND LOW POMER SUPPLY RESULTING	FAILUME MODE-OUT OF TOLERANCE. BOOSTER THRI'ST CHAMBER PRESSURE CUTPUTS MERE 5 AND 7 PERCENT HIGH FOR 81 AND 82 ENGI NES. THIS RESULTED FROM A HIGH BOOSTER GAS GENERATOR REFERENCE REGULATOR SETTING ATTRIBUTED TO A MALFUNCTION OF NO 2 LANGLINE POWER SUPPLY AND ASSOCIATED WALTAGE-HETERING CIRCUITRY. REGULATOR WAS SET TO LANGLINE RECOMDER MHICH HAD A LOW POMER SUPPLY RESULTING IN HIGH SETTING.	NUME CUTPUTO WICKE S OCE REGULATOR SETTIN JITRY. REGULATOR WAD	AND 7 PERK TG ATTRIBUTE SET TO LE	ENT HIS ED TO A JOLINE A	A LANGE COMPANY OF THE PARTY OF	81 AND 82 ENG! NCTION OF NO 2 EST MITCH NAD A	
SYSTEM EFFECT-OFFIATION TOO HIGH.	CK TOO HISH.		• •				
VONCLE EFFET-HOE.							
CORRECTIVE ACTION-HOME, SECONDARY FAILURE.	E. SECORDARY FAILURE.						
PROPILLSTON-IN1-A/B BOOSTER	81-307-69-0E THEUST CHAIGER	CAPTIVE	77 \$010 8	31/876	5 5	TES ROCKETOTNE NO	1
FAILURE HODE-ERRATIC OPEN. UP TO 190 P31 PEAK-TO-PEAK	FAILUNE MODE-EBRATIC OPCIATION, BOTH FUEL INJECTION MANIFOLD PHESSUPES GROOSTER) INDICATED INCREASING OBCILLATIONS P TO 150 PSI PEAK-TO-PEAK AT 400-800 CPS. THENE OBCILLATIONS NERE NOTED THROUGHOUT BOOKTER OPCIATION.	D PRESSURES GOODTE IS NEINE NOTED THROUGH	R) INDICAT	TO THEME	A5116	- 046114411048	
BYBTON GFECT-NO.C.							_
MONTAL EFFET-NOE.							
CORRECTIVE ACTION-LINENDAN	O.						
PROPULSTON-HA1-A/B BOOSTER	31-304-133-CZ BE TUBGONUP BEARING TO TUBBINE WE GEL BEAL	CAPTIVE	25 SHE18	31/8TC	Šõ	TES ROCAETOTHE TES	355
PATLURE MODE-OUT OF TO	PATLUNE MODE-OUT OF TOLEPANCE, BE TURBINE BEARING TEMPERATURE EXCEEDEDACOLINE. POSSIBLY RESULTED FROM A PAILURE OF THE MOT CAS SEAL BETHEEN THE TURBINE WHEEL AND THE BEARING. OIL AFT CHECKED OUT MATISFACTORY.	ME EXCEEDEDACOLINE.	POSSIBLY MATISTACT	RESULTED	2	A PAILURE OF	
BYBIEM EFFECT-MICH TENTRATURE EVIROBENT.	PERATURE EVIROBENT.						
MONTOLE EPPEET-PREMATURE	AC PROPULSION CUTOFF, COSTINUES CUTOFF.	.•					
CORRECTIVE ACTION-REPLACED	ACED TURBLINE ALLEGISTY.						
						2000	·
						THE MARK	7

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GENERAL BYNAMICS CONVAIR BIVIBION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSCHIC

	OIFFICULTIES REVIEW-PROPULSION STATEM-AIRSCANE	PULSTON STATEM-AIRBON	¥				
8721EH 84 6 -3721EH	TEST/REPORT MARKER FAILED COMPOSENT MARK	DIF DATA BOURCE PART NUMBER	VENICLE DATE DIF		# 6 # 6	BITE PRI VENDOR NAME THE DIF OTH VENDOR PART NO	 -
PROPULSTON-INST-A/B BOOKTER	51-304-63-02 B2 TUBGPUP BEARING	CAPTINE	2 H	81/8VC 81	F 8	TE B ROCKETOTHE	•••
PATLUME MODE-STRUCTUMAL.	AL. DE TURBINE BEARING TENP. EXCEEDED REDLINE. POSSIBLY RESULTED FROM A DEFECTIVE BEARING.	D REDLINE. POSSIBLY R	tsu.to fi	10s A 8671	CTIVE	PEARING.	
SYSTEM EFFECT-MIGN TEN	MEDICATURE ENVIRONMENT.						
WONICLE EFFECT-PREDATURE	UNE PROPULATION CUTOFF.						
CORRECTIVE ACTION-REPLA	LACED TURBINE ASSEMBLY.						
PROPUL 81 OH-MA1-A/B BOOS TER	2C-7-E07/P1-E08-00-8	P.IOT	8 9 1111	11 ÆTE	ž 8		9
FAILURE MODE-OUT OF T GE WAS NOT ACCEPTANCE DRE INSTALLED ON THIS	FAILUNE MODE-OUT OF TOLERANCE. BOOSTER ENGINE APPARENTLY OPERATED AT A FUEL RICH MIXTURE RATIO. BOOSTER FOMER PACKA SE MAS NOT ACCEPTANCE TESTED WITH THE ENGINE AND MOMINAL PLOW CONDITIONS NERE NOT ESTABLISHED. C RERIES TURGRUMPS W ENE INSTALLED ON THIS MISSILE TO EXPEDITE FLIGHT ORECROUT OF A FIX TO THE PUMPS.	OPERATED AT A FUEL RI LOW COMDITIONS NERE N OF A FIX TO THE FURPS	CH MIXTURE OT ESTABLI	: RATIO. C	000 ET ES	POMER PACKA TURBOPUNES M	
SYSTEM EFFECT-DEPLETION	ON OF LIBVID SUPPLY. PUB. DEPLETION.						
WHICE EFFECT-PREMIURE S	UNE SUSTAINER ENGINE BRUTEOM, BRUTEOM APPROXIMATELY 14 SECONDS EARLY.	OAN APPROXIMATELY 14	SECONDS E	ALY.			
ROTULSION-HAI-A/P	FTAARS/FT-EDS-00-9 BOODTER REGULATOR LINE	k	361027	11/CH	ë e		*
FAILURE MODE-FAIL DURING	FAILUME MODE-FAIL DURING OPERATION. AT CUTOFF THE BOOSTER ENGINE CONTROL REGULATOR CUTLET TRANSDUCER PLUNGING LING SPLIT, RESULTING IN A CONTINUOUS HIGH PLOW OF MELLUM IN THE ENGINE CONFATUENT.	ENGINE CONTROL REGUE. E ENGINE CONPARTMENT.	ATOR OUTL	TRANSON	5	Means Line	
SYSTEM EFFECT-DEMETTON	on of eas supply, a continuous high play of Holium in the excise compatition depleto Holium s	rav of Haium in the	DALINE CO	DEFARTICENT	76	TED HELIUM 8	
WENTELE EFFECT-HOME.							
CORRECTIVE ACTION-REPLACE LINE.	ראפ דואני						
PROPUL 3100-841-478 BOOS 7DR	ZC-7-£09/79-£02-00-09 TUBOFUR BEARING	P.1807	918098	13/ETR 60.0	TES NA		
PATLURE MODE-FAILED DURI ES METENCE PRESSURE DE 184.	FAILURE MODE-FAILED DURING OPERATION. BI ENGINE FAILED AS RESULT OF FAILURE OF BI TURBOPUNF MUNGER 3 BEARING. LOX R ES REFERENCE PRESSURE DECAY FOLLONING FAILURE INDICATED PROBABLE PUNCTURE OF SENSE LING BY PUNP FRAGNENTS SINILAR TO 1584.	RESULT OF PAILURE OF SOME OF SE	B1 TURBON	The state of	700 F	ARIMG. LCK R B BINILAR 70	
SYSPEN EFFECT-OPERATION AVED RAPIDLY. LOS RES RE	STOVEN EFFECT-OFERATION STOPS PRENATURELY. POLLOHING PAILURE OF THE BI TURBOPUND THE ECOSTER HYDRAULIC PRESSURE DEC AYED RAPIDLY. LOW RES SEPERENCE PRESSURE DECAYED. GOOSTER ENGINE CHANGER PRESSURES DECAYED WITH BY DECAYING AMEAD OF	URE OF THE BY TURBOPH ENGINE CHANGER PRESSU	NE THE BOX	DE STEE OF	AM.1c DECAY	PRESSURE DEC INS ANEAD OF	
						PARE BODS	

GENERAL DYNAHICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

87.57EH 848-37.57EH	TEST/NEPORT NUMBER FAILED COMPONENT MANE	DIF DATA SOURCE PART HUMBER	WENTCLE DATE DIP	91TE	SITE PRI VENDOR MANE	MANE NO	
BR. COMPLETE BOORTER SHU	MUTBOLAN POLLOATO AS SAS SENERATOR OPERATION PELL OFF.	RATION PELL OFF.					
WHICLE EFFECT-MEMTURE PROPERTY OF WORLDE.	WENTOLE EFFECT-PREDATURE PROPILATION ANYBOAN. DESTRUCTION AT 62.5 ACCORDS FOLLOWING BMUTDOWN OF THE BOOSTER EMSINES DUE TO PITCH-UP OF WENTOLE.	T 62.9 SECONDS FOLL	OM HE BHUT	E SO HEIOX	C BOOSTER (EME INC. 8	
CORRECTIVE ACTION-PRESSAL	CORRECTIVE ACTION-PRESSURIZE GEAR-CASE BY PLACING RELIEF VALVE IN LUBE OIL DRAIN LINE, CHANG NO. 3 BEARING FROM BA LL TO ROLLER TYPE AND ADD RETAINERS, REDESIGN THE BUILL BAUFT.	LWE IN LUBE OIL DRA. T.	IN LINE, G	WHEE NO.	9 DEARING V	AG BO	
PROPULSION-MAI-A/B BOOSTER	28-7-079/28-219-C4-01 81 THRUST CHANGER	CAPTIVE	18	12 / BYC	YES ROCKETOVNE NO	¥	••••
FAILURE MODE-FAIL DURING RIMS THE COCLANT TUBE (3) BECO PLUS 0.5 SECONDS.	MG OPCIATION, FAILURE OF THE BE THRUST CHAMBER RETAINING BAND WAS THE PROBABLE CAUSE OF RUPTU (3) RESMATING IN A PUEL LEAR AND PIRE, PUEL LEAR STARTED PRICK TO BECO AND THE FIRE STARTED ~~	THRUST CHANDER RETAINING BAND HAS THE PROBABLE CAUSE OF RUFTU FIRE, PUEL LEAK STARTED PRICH TO BECO AND THE FIRE STARTED AT	BAND NAS	THE PROBAL ICO AND TO	DLE CAUSE CI E FINE STAI	5 9 5	
SYSTEM EFFECT-DEPLETION OF THE SEC LOS PLANCE LINE	SYSTEM EFFECT-BEMLETION OF LIQUID SUPPLY. THE FUEL LEAK RESULTED IN A THRUST BECTION FINE, THE FINE CAUSED FAILURE OF THE SEC LON PURKE LINE WHICH ADDED TO THE FINE, AN EIPLOSION OCCURRED IN THE SUBTAINER ENSINE DURING SHUTDOM.	ALTED IN A THRUST BE TON OCCUMED IN THE	ECTION FIRE BUSTATHER	E. THE FILE	RE CAUSED FA	TILUME No.	
WAIGH EFFECT-FIRE.							
CORRECTIVE ACTION-LAKHOLAN.							
PROPULSTON-NAT-A/B BOOKTER	FTA18677-E0E-00-05 REGALATOR	ŧ	93 93 93 93 93 93 93 93 93 93 93 93 93 9	81./ETB	YES ROCKETDYNE NO	Ä	****
FAILURE MODE-CUT OF TOLERANCE, B46 LDR ST LUE POLLOATHS WENHIER AVANT FOR T RECOMBS.	FAILURE HODE-CUT OF TOLERANCE, BGG LOP START TANK REGULATOR PRESSURE AND TANK PRESSURE INDICATED ABHORMALLY MIGH YA Le Polloming Wenhiem start for 7 seconds.	PRESSURE AND TANK (PRESSURE 21	915,150	PHONMELLY	\$ \$	
BYSTON EFFECT-ONDAVION	H TOO MISH.					•	
WAICLE EFFECT-HOME.							
CORRECTIVE ACTION-LINKHOLDS.	•						
PROPULST CH-HA1-A/B ACCO TER	THE OIF 144 PRESURE E4-1026/TE81 14-305-43	CAPTIVE	909096	1-4/E044 10-8 10-8	99		
FALLURE MEDE-OUT OF TOLES FT. AFTER 8E SECONDS FIRST COMPUTOR RESULESTED CONTIN	FAILURE HODE-OUT OF TOLEDANCE, SUSTAINER OPERATION WAS TERMINATED PRENATURELY AFTER 101 SECONDS BY AN OBSERVER FF. AFTER SE SECONDS FIRING, THE BILLURE OF PROFESSORE DROP FROM 770 TO 540 PS16, THE CONDUCTOR RESIDENCE OF FROM 770 TO 540 PS16, THE CONDUCTOR RESIDENCE DECAY TO TO 540 PS16, THE CHARACTER SECOND A TORNAL DECAY, THE CHART C. UNDWARE OF THE SIMULATED STARING, INITIATED CUTOFF.	INATED PRENATURELY / INDICATED A PRESSURE AS THE PRESSURE BEI	AFTER 101 1 E DROP FROM LAN A NORW	ECO403 6)	TAN OBSERVE MO PS16. THE THE CHART OF	A TEST	

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WENTELE EFFECT-PREMATURE PROPULATOR SWITTOMS. CUTOFF INITIATED BY CHART CRAENER OF BI LUBE OIL PRESSURE AS PRESSUR E petani a normal becineare due 10 similated stabing union he was not ambre had occuments.

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GENERAL DYNAMICS CONVAIR DIVIDION

13 Jun 1966

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

87 BYEN BUB - 87 STEN	TEST/REPORT MANGER FAILED CONFORENT MANG	DIF DATA SOUNCE PART NUMBER	VENICLE DATE DIF	114E 01F	2 5 2 5	VENDOR HANE VENDOR PART NO	
CARECTIVE ACTION-UR	INCUR.				1		90008
PRCPULSTON-MAI-AA	2C-7-097/PE-104-00-16 BOOSTER LON REFERENCE REGULATOR	P.I.ST	164 80003	12/CTR -11	768 ROC 878	ROCKETDYNE R/B	0
FAILURE MODE-OUT OF THE	POLERANCE. LOR RESULATOR RETERENCE PRESSURE WAS NET APPROXIMATELY 10 PS1 LOW DUE TO USE OF CALIBRATION.	PRESSURE WAS DET APPRO	KIMTELY 3	100 E	3 6	USE OF A HE	
SYSTEM EFFECT-OMENATION TOO MEET WAS LONGR THAN EXPECTED.	SYSTEM EFFECT-OFERATION TOO LOW. BOORTER BAS BENERATOR PERFORMINCE WAS LOW AND COMBEMENTLY BOORTER EMSINE PERFORMA Kee has lower than effected.	PERFORMACE WAS LOW AN	CONSTRUC	MILY 8006	10 C4	INE PERFORMA	
WASCLE EFFECT-HOME.							
CORRECTIVE ACTION-UR	NOW.						
PROPULSION-NAI-A/B BOOSTER	F742636/F-101-00-18	784	10A 900410	12/ER	8 8		13810
FAILURE MODE-CONTAMIN LY CONTAMINATED THE BE	MITON. A STLICA GEL DESBICANT BAS WAS LEFT IN THE BOORTER ENGINE PUEL SYRTEN DUCTING WHICH BAD COURSER AND PROPELLANT PEED LINES.	WAS LEFT IN THE BOOOTED B.	P Delice	VCL BYATO	N DACTI	IS WICH BAD	
STSTEM EFFECT-CONTAME	MATION.						
WHALE DYECT-HOME.							
CORRECTIVE ACTION-REPA	CORRECTIVE ACTION-REPLACED BOCOTER & ENGINE.						
PROPULS ON-1411-A/B BOOS TER	28-7-078/11-203-C1-07	CAPTIVE	78 56040 6	1-1/CD4A R03 e1.79	3 B		••••
FAILURE HODE-BTRUCTUR	FAILURE HODE-STRUCTURAL. BE LUBE OIL PRESSURE LINE FAILED BUE TO THRUST SECTION FIRE.	LED DUE TO THRUBE SECTION	ON FIRE.				
SYSTEM CYFECT-OPERATION	ON TOO LOW, THE LUBE OFL PRESSURE PROPPED BELOW REDLINE LIMITS.	DROPPED BELOW REDLINE	LIMITS.				
WONICLE EPPECT-PREMATI	THE PROPERSION CUTOFF, CONCENTR CUTOFF MICH REDLINE LIMIT MAS VICENTED.	UTOFF IMEN REDLINE LINI	r sas via.	A769.			
CORRECTIVE ACTION-GRE	CHOOL.						
PROPULSTON-141-A/B BOOSTER	EC-7-096/P4-106-00-19 Pust-TURBO/BOOFTEN NO. 1	PLICHT	15A \$60405	14/CTR 103	\$ 4 8 8	YES ROCKETDYNE NO	4
FAILURE MODE-FAIL DURI IN THE MEAN BON.	FAILUME MODE-FAIL DUMING COCTATICH-THE BI TURBOPUMP FAILED AT 105.34 RECONDS PROBABLY SECAUSE OF A BEARING FAILUME HI THE GEAR BON.	1.LD AT 105.34 SECONDS !	PROBABLY SA	Count of	A BEAR	ING PAILURE	
SYSTEM EPYECT-OFENATION OF CHICAGO	SYSTEM ETYCET-OFCHATION STOPS PREDATURELY-THE FAILURE OF THE BI TURSCHURP RESULTED IN PRENATURE BHUTDOM OF THE BOO- TER ENGINE.	OF THE BY TURBOPURP RESI	A.160 IN A	Ten rate	MCT004	N OF THE 800	

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GENERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULBION BYSTEM-AIRBORNE

310-31EN	TEST/REPORT MUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	WENICLE SITE PRI WENDOR MANE DATE DIF THE DIF OTH WENDOR PART NO	9
AS A RESILT OF THE FAILURING AND "	VENILLE CONTINUEMENTE, PROPRESSION AND DOMESTONELLE, FOREX AND DOMESTONED APPROXIMATELY EZ BECOMD PRIMITATION AS A RESILT OF THE FAILURE. THE GOOSTER 643 ECHERATOR BRICADAR BECAUSE 27 23 PED PROM THE B1 PUMP THIS CAUSED SHUTDON OF THE BE ENGINE AND THE WENNIERS WHICH ARE ALSO PED THOM THE BE PUMP.	THE BE PURE.	AFFROM THE BI PUMP THIS CAUSED IN	
CORRECTIVE ACTION-POLLO HE FLAT GASHET AND SEAL OURIZATION RIT, NON LEARIN HE RENOMED FROM OIL PRESS	CORRECTIVE ACTION-POLLOMING THE 68 PAILUME, TUMBORUMP BEARING 5.4.5; AND 6 MERE REDESIGNED, THE 8TUB-TOOTH GEARS, T He Flat Gasket and seal on accessory drive pad, and the Guill Shaft were replaced with later design. Gear case Press Unization Rit, non Learing, thermocouples and skinger seal to curbine enhands manifold here installed. The 8 muts me The memoned from our pressure ports on the turborume.	IN 3,4,5, AND 6 WENT. L SHAFT WENE REPLACTION (WENE EDIAND)	IE REDESIGNED. THE STUB-TOOTH GEAL ED WITH LATER DESIGN. GEAR CASE I MAIFOLD WERE INSTALLED. THE B MU	,
PROPULSTON-NAT-A/B BODSTER	FTAETIO/P4-101-00-15 WALVE-PROPELLANT-BOODTER PLEL	786	15A 14/ETR YES 560517 NO	49901
PATLUME MODE-LEAK-EXTER	THAL. PURL LEARS WERE DISCONDED IN BOTH BODSTER DIGING PUEL VALVES.	NOTH BOOM TEN ENGINE	FLEL VALVED.	
STSTEM EFFECT-MOME.				
WHICLE EFFECT-COUNTDONN ABORNED	WOVICLE EFFECT-COUNTDOWN ABOUTED AND RESORDALED.			
CONTRACT IN THE SECOND				
RCPUSION-MI-A.B BOOSTER	EMBB/14-108-87-14 BE LOX PIMP CASING BOLT	CAPTIVE	14A 1A/EDHAR YES ROCKETOYNE 560222 03 NO 46.5	1,22,
FAILURE MODE-LEAK-EXTER	FAILURE MODE-LEAK-EXTERNAL. POST-TEST MARDHARE INSPECTION REVEALED A MISSIMG BOLT AT THE 32 LOX PUMP CASING.	EVEALED A HISSING E	ICLT AT THE 32 LOW PUMP CASING.	
SYSTEM EFFECT-LOW TENTER AT MESULT OF BE	STITEM EFFECT-LOW TEMPERATURE ENVIRONDENT. BI PRESSURE TRANSDUCERS MERE ADVERSELY AFFECTEE BY EXTREMELY COLD TEMPER Tures as a result of being sprayed by leaking low.	ISOUCERS NERE ADVERS	ELY AFFECTES BY EXTREMELY COLD TI	5
WEMICLE EFFECT-PREDATURE SECONDS BY CASENVER CUTY EAK ALBO FROZE THE YAM AN COMOS.	WEMICLE EFFECT-PRENATURE PROPULITION CUTOFF, BOOBTER AND VERNIER ENGINE OPERATION WAS TERMINATED PRENATURELY AT 48.5 SECONDS BY COSERVER CUTOFF WHEN VISUAL COSERVATION OF CHARTS INDICATED AN ERRONEOUS DROP IN BI PRESSURES, THE LOX L AK ALSO PROCE THE YAW ACTUATOR AND PLEDBACK TRANSCUCER CAUSING THE BE CHANGED TO 60 MARD ONTR IN YAW AT ABOUT 31 SE ONDS.	INIER ENGINE OPERATI 18 INDICATED AN ERRC IING THE BE CHANGER	ON WAS TERMINATED PRENATURELY AT MEOUS DROP IN BI PRESSURES. THE IT SO GO MARD OVER IN YAM AT ABOUT I	1 46.3 1 46.3 31 46
CORRECTIVE ACTION-SYSTEM REPAIRED.	X REPAIRED.			
PROPULSION-1441-4/8 BOOSTER	EC-7-093/F4-102-00-13 BEARING LUBE JET INSTRUMENTATION & OSS CAP-TURSO PUMP	72.1847	13A 14/ETR YES ROCKETDYNE 560E07 18.54 NO	

PASE DODS

FAILURE MODE-STRUCTURAL. AT 18.54 SECONDS OF PLIGHT THE BI LUBE OIL INJECTION MANIFULD PRESSURE DROFPED SHARPLY PRO H 670 PSIA TO 460 PSIA AND REDAINED AT THIS LEVEL UNTIL SHORTLY BEFORE ENGINE SHUTDOMN. THIS SAVE SITUATION OCCURRED DURING THE PRF ON THIS WENICLE AND IS ATTRIBUTED TO LOSS OF THE CAP OVER AN UNUSED NO R BEARING LUBE SET IMPROMENT

ATION BOSS.

BYBTEM EFFECT-DEFLETION OF LIBUTE BUFFLY. AT 106.4 SECONDS BE LUBE OIL INJECTION MANIFOLD PRESSURE NOSE FROM 450 TO 640 FOIL THEM DESIGN TO 140 FOIL TO DECAYED TO 140 FOIL TO THE SE FUNF INDICATED A RAFID SAUTDOMN IT IS FELT THAT THE WO. S SCARING HAS FAILED WITH RESULTANT GEARCAGE BIBITERATION AND PLYING DEBRIS CAUGED BY MISDESISM AND LACK O

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

8137EN 818-8131EN	TEST/REPORT NAME FAILED COMPOMENT MAME	DIF DATA BOUNCE PART HUMBER	VEHICLE SI DATE DIF TIW	_	PRI VENDOR MANE OTH VENDOR PART NO	VENDOR MANE ENDOR PART NO	
. ותפ מוי				i			•• 150
WHICH EFFECT-HOME. I	WONICLE EFFECT-HOME. ENGINE SMUTDOMM HAD BEEN INITIATED.						
CORRECTIVE ACTION-ALL	CORRECTIVE ACTION-ALL UNUSED INSTRUMENTATION PITTINGS ON THE TURBORUMP LUBE OIL SYSTEM WILL BE SAFETY WIRED.	E TURBORUR LUBE OF	SYSTEM WILL	. M. M.	ETY WIRED		
HOPUL310H-MA1-A/B 0051ER	EC-7-085/P4-102-00-13 NO. S TURBO PURP BEARING	P.1441	184 14/ET 90007 117.6	_	YES ROCKETOVNE NO) VAC	202100
FAILURE MODE-FAIL DURING E NO. 3 TURBGRUNG BEARING	ING OPERATION. BE PUMP SWATDOWN PARTER THAN MORNAL AT 117.8 BECONDS BECAUSE OF A FAILURE OF TH ING.	THAN NORMAL AT 117	# ####################################	CAUBE	F A FAILU	70 14	
SYSTEM EFFECT-LOSS OF	STRIEN EFFECT-LOSS OF BINUCTURAL INTEGRITY. RESULTED IN FAILURE OF TURBINE MAFT AND DISINTEGRATION OF THE GEAR BOX	LURE OF TURBINE AN	T AND DISIN	EGRATIC	# Q* 11K	KEAR BOX	
WONCLE EFFECT-NOME.	WENICLE EFFECT-NOWE. ENGINE SHUTDOWN HAD BEEN INITIATED.						
CORRECTIVE ACTION-PRESS	CORRECTIVE ACTION-PRESSURIZE GEAR CASE BY PLACING A RELIEF VALVE IN THE LUBE OIL DRAIN LINE, CHANGE NO. 5 BALL BEAR NG TO ROLL BEARING AND ADD RETAINGRS, REDESIGN BUILL BHAFT.	VALVE IN THE LUBE O	IL DRAIN LIM	COLAMA	f #0. 9 p	ILL BEAR	
RCPULSION-1441-478 008TER	FTRE942/P4-101-00-18 TUBO-FUR BOSS	È	13A 14, 560131 PL	14/ETR PLUS 250	YES ROCKETOVNE NO	, in	993339
FAILURE MODE-LEAK-EXTE ON THE NO. 1 BOOGTER TO	FAILUME MODE-LEAK-EXTERMAL. LUBE OIL LEAKAGE OCCURMED AT A UNUSED INSTRUMENTATION BOSS (NO. E BEARING TENFERATURE) OK THE NO. I BOOSTER TURDOPUMP. TEST DATA INDICATED THE BORA BECAME UNCAPPED AT APPROXIMATELY PLUB ED SECONDS.	UNUSED INSTRUMENTAT BECAME UNCAPPED AT	ION BOSS (NO.	2 8 8 Y	20 SECOLO	AATURE) B.	
SYSTEM EFFECT-MOME.							
WENICLE EFFECT-NOIC.							
CORRECTIVE ACTION-THE C.	CORRECTIVE ACTION-THE CAP NAS REPLACED AND NO PURTHER LEAKAGE NAS EVIDENT. THE SYSTEM NAS PRESSURIZED TO SOOPS! TO Eternine that the caps reducined in place.	IGE IALS EVIDENT. THE	SYSTEM NAS A	MESSURI	08 01 035	07 1840	
ROPULSTON-HA1-A78	FTAEATS/P2-104-00-10 BI MAIN FUEL VALVE.	COUNTDOLA	10A 12/ET 560107 -6600	_	VES ROCKETOVNE NO	071€	99710
PAILURE MODE-LEAKAGE-E	PAILUME MODE-LEAKAGE-ENTERML. PUEL LEAK ANGUNG LIP BEAL OF NO. 2 BOODTER PUEL VALVE.	NO. 2 BOOSTER FUEL	VAL VE.				

VEHICLE EFFECT-COUNTEDIAM ABOUTED AND RESCHEMBLED. THE WINN'TE HOLD AND THEN TEST ABOUTED.

CORRECTIVE ACTION-REPLACE BY HAIM FUEL VALVE.

STATEM EFFECT-MOME.

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GENERAL DYNAHICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

STETEN SUB-STETEN	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF DATA SOURCE PART MUMBER	VENICLE DATE DIF	VENICLE SITE PRI	PRI VENDOR NAME OTH VENDOR PART NO	3
MOPUL3104-M1-A/B B0041EN	FTAEAET/FE-104-00-10 B! MAIN FUEL VALVE.	COUNTDOMN	10A 671216	12/ETA -12000	VES ROCKETDYNE	404
FAILURE MODE-LEAK-ENTER!	FAILURE MODE-LEAR-ENTERMAL. BI MAIN FUEL VALVE MAS LEARING AROUND THE BMAFT AND GATE BEALS.	AROUND THE BHAFT AND	D 647E 9E	, . , .		
SYSTEM EFFECT-MOME.						
WHICLE EFFECT-COUNTDOM	WENICLE EFFECT-COUNTDOMM ABGRIED AND RESCHEDLED. BO MINUTES OF MOLD TIME. AT LEAST SE MINUTES OF THE MOLD MAS SMAR D with am autopicot problem. The test was them aborted due to both problems.	S OF HOLD TIME. AT !	LEAST 18 !	dautes of	THE HOLD WAS I	
CORRECTIVE ACTION-REPLACE VALVE.	CE VALVE.					
MOTUL 31 00-1441-478 8003 TER	F742336/PE-103-00-10 THRUST CAMBER	727	10A 971210	12/ETR	VES ROCKETDVNE NO	003349
FAILURE MOE-ERRATIC OF	OPERATION. IT WAS BELIEVED THAT ICE OR BLUSH FORMED IN THE BI PUEL CHAMBER TUBING BEFORE 1641T TRICTED FUEL FLOW TO THE CHAMBER AND CAUSING ROUGH COMBUSTION DURING TRANSITION.	BLUSH FORMED IN TH USING ROUGH COMBUST	E DI PUEL ION DURINE	CHAMBER 1	'ublins BETORE 14 ON.	
SYSTEM EFFECT-LOSS OF S	F STRUCTURAL INTEGRITY. SPLITS IN THE PUEL CHANGER TUBING ABONE THE THROAT NECESSITATED REPLACE	UEL CHANGER TUBING	ABONE THE	THEORY ME	CESSITATED REM	
WONICLE EFFECT-NOME.						
CORRECTIVE ACTION-REPLACED B1 ENGINE.	CED B1 ENGINE.					
PROPULSION-NA1-A/B BOOSTER	EN-779/3-1, 103-43-00 BCC LGNITER	CAPTIVE	9.A 9.7.8.200	8-1/37C 0	7£3 10	65960
FAILURE MOE-FAIL TO OF	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, PREMATURE CUTOPF BY BOOMTER IGHITION BIAGE TIMER AFTER 5.12 MECOND 8 OF VERHIER EMEINE OPERATION HAEN BGG IGHITER LINKS FAILED TO BREAK.	CUTOFF BY BOOKTER 10 TO BREAK.	ention e	IACE TIMES	. AFTER 8.12 SEC	9 8
SYSTEM EFFECT-OFENATION	CON DOCE NOT BTART.					
WENICLE EFFECT-PRESATURE PROPULSION CUTOFF.	E PROPULSION CUTOFF.					
CONNECTIVE ACTION-REPLACE TONITED	CE TONITOR.					
PROPULS (0H-1441-4.78) BODS TER	DH-76514.116-849-02A LOH LIBVID REGULATOR	CAPTIVE	EA 971031	14/2D44R	14/EDAMR YES ROCKETDYNE DS NO	
FAILURE MODE-OUT OF EXPI	expected test value, thatest longs than nominal, see em-546/18-104-FT-Dea.	NON11961. BEE EN-540.	/11-104-F	-084.		
SYSTEM EFFECT-OFFRATION	STSTEM EPPECT-OPERATION 100 LOW. APPRECIABLY LOWER THAN MONIMAL.	im.				
WENTELE EPPECT-NONE.						

SCHERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

8787EH 818-8737EH	TEST/REPORT MUMBER FAILED COMPONENT HANG	DIF DATA SOURCE PART MUNGER	VEHICLE DATE DIF	11 ME 014	PRI VENDOR NAME OTH VENDOR PART NO	
CONNECTIVE ACTION-UNERHORM.	WA.					
PROPULSTON-MA1-A78 BOOSTER	EN-8961A.113-D6-DE BOORTER ENGINE	CAPTIVE	24 971000	1A/CDMAR 08	1A/EDIAN YES ROCKETOYNE DS NO	***
FAILURE MODE-OUT OF EXP D LDS MAS EXPECTED. BGG ORPORATION OF SHROUDED B	FAILURE MODE-OUT OF EXPECTED TEST VALVE. BOOSTER THRUST HAS BELOW MOMIMAL. TOTAL THRUST HAS 257,000 LBS HAEM 270,00 LDS HAS EXPECTED. BUG MIXTURE RATIO HAS D.200 O/F WHEM MOMIMAL IS 0.847 O/F. PROSLEM APPEARS TO CORPELATE HITH INC RPORATION OF SHROUDED BLADE TYPE TURBINES AFTER TEST 14,103.	1 BELOM MOMINAL. TO 11ML 18 0.847 G/F. 1.	FACELEN AN	W. EST.00	OCIES MACHERATO, DO	
SYSTEM EFFECT-OPERATION TOO LON.	M T00 L0M.					
WENTELE EFFECT-NOME.						
CORRECTIVE ACTION-MONE.	: APPARENT, RECOMEDIDED ACTION WAS TO INCREASE LOG REGULATOR REFERENCE PRESSURE TO RANGE OF SHMOLOGID BLADE TYPE TURBINGS.	INCREASE LOE RESUL	NOR ASTOR	WE PRESS	ME TO RANGE OF SO	
PROPULSTON-MA1-A/B BOOSTER	DP-096/1A, 113-08-0E BOOSTER THRUST CHANGER	CAPTIVE	27 1000	1 A /TDUAR 08	1A/TDMAR YES ROCHETOVNE DS NO	•
FAILURE MODE-STRUCTURAL	IL-POST TEST INSPECTION REVEALED BEVENAL PIN HOLES IN THE BE THRUST CHANGER	IAL PIN HOLES IN TH	T BE THAUST	CHAMBER.		
SYSTEM EFFECT-NOME.						
WENTER EFFECT-NOME.						
CORRECTIVE ACTION-UNKING	CORRECTIVE ACTION-UNKNOWN. MOLES MERE REPAIRED.		!		;	
PROPULSTON-MAT-A/B GOOSTER	EP-680/109-372-09 hates charger fuel 74863	CAPTIVE	5A 971008	1-1/CD44 YES	63). MD	3 2 2
FAILURE MODE-LEAK-EXTER	erml. Post test inspection of the Be thrust chamber remaled excessive internal learage in th	THRUST CHANGER REM	CALED EXCE	SINE INTEL	INAL LEAKAGE IN 70	 -
BYBTEN EFFECT-KOME.						
WENTELE EFFECT-NOME.						
CORRECTIVE ACTION-RE TH	HRUST GUIDER REPLACED.				!	
PROPULSTON-141-4/8 8008728	EH-460/109-872-05 81 TURBINE TO EMANST BUCT PLANSE	CAPTIVE	9A 971003	ON 808	VES MO	
FAILURE WORC-LEAK-EXTER THE BURFACE DETWEEN DI T	FAILURE WODE-LEAK-EXTERMAL. MEGN EMBIJ - JACHATHENT TEMPERATURES MENE THE RESULT OF A LARGE MOT GAS LEAK AT THE MAT Has sumface betheer as tumbine and the "A sing example duct.	THES NEW THE RESI	AT 97 A LA	R6E H01 &	A LEAK AT THE MAT	
1900 HPCH-135440 R34946	HME COMPARTMENT . CHPERATURES MERE NOTED AS A RESULT OF THE LARGE SAS LEAR. ALSO, FORT TEST IN	TO 18 & MEUT OF	ME LANGE 1	AD LEAR. /	1600 POST TEST 11	

CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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	5 366			7.2000					88 938								
VENDOR PARE NO					SWITCH INSTALLED BETWARDLED BETWARD IN INTERHITY VEHTED. THE B1 AND BE DECAY UNTIL THEY DROP	PPING BOLOW THE			YES ROCKETOYNE NO	UEL FLOR WAS LO	TO RANGE OF 50	ROCKE TO VIE	IS REQUIRED TO				0100 Yev
0 T T			KT.	20	TTO BALTI BATED	2				9	385	÷ 9	2			•	
317£ 110 3417			EDIAUST C	1-1/EDM RD8 0.93	ARCIND A SH BHORTING RE OIL TANK VE TIMAED TO DE	FRESSURE			1-A/FD48 FD8	97. LOK A	DKE MES	1-A/Dim f03 6.17	7 IEM 1			ITER FAIL	
VEHICLE DATE DIF			SEINE I	34 97100E	INE ANY THE SHI USE OIL	K of			2A 5709£7	73.00 E	ROTEKI	2.4 \$709.24	8			1 1 1 m	
VE)	}		5	* £	7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3 5			2 6	B148	A 104	2 %	T a I			C1 7M	
DIF DATA SOUNCE PART HUBER			MEEN BY TURBINE AN	CAPTIVE	T OF A BROKEN JUPPER WIRE AROUND A RING BEGUENCE CHECKS. THE SHORTING ING BOLENGID AND THE LUGE OIL TANK. A RECONDS. PRESSURES CONTIMUED TO	ATED AS A RESULT O			CAPTIVE	TOO LOW TO COTAIN OM AT STOO REN.	INCHEASE LOX REGLE	CAPTI WE	FAILED TO FIRE. P	DID NOT FIRE.		IMITION IN CASE	
HUMBER HT HAME	HAUST BECTION.		HE BURFACE BET		LUG FOR USE BUL OIL FRESHRIZ TO DECAY AT & LIMIT.	TOP WE INITIO				PRESSURE IMB I	ACTION WAS TO TUMBINES.		E- AN ICHITER	DATER ENGINES (KED TO PROVIDE	
TEST/REPORT HUNGER FAILED COMPONENT HANG	ENCE OF FIRE IN THE THRUST MECTION.		ENENT OF SEAL AT NATE	Di-660/106-872-05	PATION. A SHORT OCCURRED AS A RESULT OF A BROKEN JUMPER WIRE AROUND A SOCEMOID AND CAMBOON PLUE FOR UME DURING RESULRKE CHECKS. THE SHORTING D DROPOUT OF THE LUBE OIL PRESSURIZING SOLENDID AND THE LUGE OIL TANK OLD PRESSURES STARTED TO DECAY AT 4.4 SECONDS. PRESSURES CONTINUED TO HIMMS TO PSIS LONGR LIMIT.	STOPS PREMIURELY. CU 6 LOVER LIMIT.	PROPULSION CUTOFF.	E BROKEN JUPER WARE.	DI-667/14,111-06-02 BOOSTEN ENGINE	RANCE. THRUST CHANDER FUND SPEEDS MENE APPR TOO LOW.	PPARENT. RECOMBINED (D-447/14,110-04-02 16417ER	RATE AT PRESCRISED TIME- AN IGNITOR FAILED TO FIRE. FIRING OF BOTH IGNITORS IS REGUIRED TO.	DOES NOT START-ING SCOOTER ENGINES BID NOT FINE.	MONESTON CUTOTT.	ON CINCULTRY WAS MEMINED TO PROVIDE IMMITION IN CASE EITHER ISMITER PAILS.	
3731EH 31 6 -3731EH	WESTIGATION REVEALED EVIDENCE	WENICLE EFFECT-FIRE.	CORRECTIVE ACTION-REPLACEMENT OF SEAL AT MATIMS SURFACE BETWEEN BY TURBINE AND TURBINE EXHAUST DUCT.	PROPULSION-NAI-A/B BOOSTER	FAILURE HODE-ERRATIC OPERATION, A SHORT OCCURRED AS A RESULT OF A BROKEN SUPER WIRE AROUND A SWITCH INSTALLED BETW EEN THE TANK PRESSURTZINGSOLEHOLD AND CANNON PLUE FOR UME DURING SEGUENCE CHECKS. THE SHORTING REBULTED IN INTERHITTE ENT GROUNDING THAT ALLOHED DROHOUT OF THE LUGE OIL PRESSURTZING SOLEHOLD AND THE LUGE OIL TANK VEHTED. THE B1 AND BE LUGE OIL INJECTION MANIFOLD PRESSURES STARTED TO DECAY AT 4.4 SECONDS. PRESSURES CONTINUED TO DECAY UNTIL THEY DROP PED BELOW THE SOO PLUS OR HINNS EO PSIG LONGE LINIT.	SYSTEM EFFECT-OFERATION STOPS PREMATURELY. CUTOFF WAS INITIATED AS A RESULT OF LUSE OIL PRESSURE DROPFING BELOW THE 300 PLUS OR NIMES ED PSIG LONER LINIT.	WONICLE EFFECT-PREMATURE PROPULSION CUTOFF.	CORRECTIVE ACTION-REPLACE BROKEN JUNPER WIRE.	PECP CL 51 ON-MA1-A/B BOCK TER	FERFURE : "DE-OUT OF TOLERANCE, THRUST CHANGER PRESSURE HAS TOO LOW TO OBTAIN RATED THRUST, LOX AND FIEL FLOW HAS LO W CHARREL TO NCHIMAL AND FINE SPEEDS MENE APPROX. ESO RFN LOW AT STOO RFN. 21.5.TEM EFFECT-OPERATION TOO LOW.	VEHICLE EFFECT-MOME. CORRECTIVE ACTION-NOME APPARENT. RECOMMENDED ACTION WAS TO INCREASE LOS REGLEATOR REFERÊNCE PRESSURE TO RAIME OF D TO 52? PSIG MITH USE OF SHIROLOGD BLADE TYPE TURBINES.	PocaTR 9003TR	FAILURE MODE-FAIL TO OFFIATI COMPLETE THE START LABORA.	6787DH GFTCT-OFEIATION DOC	NOTES CTECT-FREM THE PROPERTY CUTOR	CORRECTIVE ACTION-16MITTON	

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DIPTICULTIES REVIEW-PROPULSION SYSTEM-AINDONNE

3737EN 948-3737EN	TEST/REPORT EMBOR	DIF SATA SOURCE	Wolar Par Dir	TIME DIF OTH	OTH VENDOR MANE OTH VENDOR PART NO	
PROPULSTON- NA.1 - A /B BOOK TOX	CH-68771-A,109-G4-02 1 sed 7GR	CAPTIVE	£4 570889	1-4/EDA 1	TES ROCKETOTION	1
PAILURE MODE-FAIL TO OFF TO COMPLETE THE START LA	OPERATE AT PRESCRIBED TIME- NO. E IGNITER PAILED TO PIME. FIRING OF BOTH IGNITORS IS REDWINED LABORS.	TER PAILED TO FIRE.	FIRING OF	- BOTH 1641	TORS IS REDUINED	
STSTEM EFFECT-OFENATION	SYSTEM EFFECT-OFENATION DESS NOT START-ING BOOSTEN ENGINES DIE NOT FINE.	DIC FOT FIRE.				
WENCLE EFFECT-PREDATURE PROPULSION CUTOFF.	E PROPUESTON CUTOFF.					
CORRECTIVE ACTION-16MIT	CORRECTIVE ACTION-TWITTON CIRCULTRY WAS REMARCD TO PROVIDE IGUITION IN CASE EITHER IGHITER FAILS.	IGNITION IN CASE E	THER ICHE	TER FAILS.		
PROPULSION-M1-4/8 8008 TER	EC-7-089-64/P4-102-00-64 866 REGLATOR RETURBICE HOLIUM LIN E-RIGID TUBING	FLIGHT	6.4 5709£5	17/EM	NO ROCKETDYNE	=
FAILURE MODE-FAIL DURING MO/OR THE HIGH EDISINE CO	FAILURE MODE-FAIL DURING OPERATION, AS A RESULT OF THE 17.5 DUCK THE HIGH EDGINE COMPARTHENT TEMPERATURES, THE BGG REGUL	THE 17-5 CPS OSCILLATIONS CREATED BY THE PLIGHT CONTROL BGG REGULATOR REFERENCE ALWRINAM HELIUM LINE RUPTURED.	REATED BY HIMM HELI	THE PLICATION OF LINE R.	CONTROL SYSTEM A	
SYSTEM EFFECT-OPERATION NGINE FLAME OUT.	SYSTEM EFFECT-OPERATION STOPS PHENNTHRELY. LOSS OF MELLIM LINE CAUSED STARVATION OF LOX TO THE BEG. WITH RESULTANT E BINE FLANE OUT.	INE CAUSED BTARVATI	8 8	10 PM 84	, WITH RESULTANT E	
WAICLE EFFECT-AIDMINE	WONICLE EFFECT-ANDWINE BOOSTER EN JHE BHUTDOMM, THE WEHICLE HAS SUBSERVENTLY DESTROYED BY RANGE SAFETY.	LE MAS SUBSEQUENTLY	DESTROYED	BY RANGE	SAFETY.	
CORRECTIVE ACTION	REC REFERENCY ALUMINAL LINE CHANGED TO	TO STAIMESS STEEL.				,
PROPULSTON-MA1-A/B BOOSTER	F74E1E0/P4-1CO-01-08 6as edierator blade valve	COSTOS ITE-S FACT	140 970919	14/ETR 1	YES ROCKETOTHE	*
FAILURE MOSE-OUT OF SPE RUNS, NOMINAL LINETS MEN	SPECIFICATION. BOONTOP SAS SENERATOR BLADE VALVE OPDIING TIMES NERE 1.38 AND 0.37 SECONDS ON MENE 0.40 TO 0.60 SEC.	NDE VALVE OPENING T	INC. NEW	1.38 AMD C	1.37 accords on g	
SYSTEM EFFECT-MINE.						
WHOLE STEET-HOME.						
CORRECTIVE ACTION-HOME.	THE OPERATING TIMES NEME ACCEPTABLE TO ENGINEERING.	TO EMBERTIME.				
POPUL 5 (ON-46 2 - A / B 8006 TER	D-6141-1,105,5P-1 16417104 DETECTOR LINKS	CAPTI VE	34 870818	1-1/COM V ROS N	7E3	
FAILURE MODE-FAIL TO ON ERE BROKEN. THE BETECTOR	FAILUME MODE-FAIL TO OPCRATE AT PRESCRIPED TIME, POST TEST INVESTIGALLO REVEALED THAT THE IGHITION DETECTOR WIRES W ERE BROKEN. THE DETECTOR LINKWAS ERUSHED AND FOUND SMORTED.	INVESTIGATED REVEAL	15 TAN 18	8 1661 1 0	DETECTOR WINES W	
SYSTEM EFFECT-OPERATION THATE AND CAMED EMBINE	TION STOPS PREMATURELY. THE ENGITED DETECTOR LINK CANNEED THE ISMITTON DETECTOR DELAY TIMER TO AC HE SHUTDOMS.	CTOR LINE CAUGED TH	E 19417104	OCTECTOR	DELAY TIMER TO AC	

GENERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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WENTELE BITE PRI VENDOR MANE DATE DIP TINE DIP OTH VENDOR PART NO				. 216.					1100S TESTS TO	7 135K LBS. 7H		MAY TO PRODUCE	ROCKETBYNE	A DEPECTIVE TO				
11 0 TE			1-1/COM YES	LEAKING AT 0				1A/EDMAR YES ROCKETDYNE 03 NO	1816 FOR PREV	17ED THRUST C NE OF 530 PSI		WY BE NECESS	9-1/8VC NO	MOPUM BREAK				
WENICLE DATE DIF			9A 1 670810	M VALVE MAS				2	D FROM 570 P	METAPED TO RA Ment Pressur		10 SES PSIG H	3.4 9 570626	AT THE BY TURN PROPERTY				
DIF DATA BOUNCE PART HUNGER			CAPTI W	DAT THE BE MAIN LC				CAPTIVE	ID REGULATOR REDUCE	NUST 130K LES AS CO		OR SETTING OF 500 T NOUDED BLADE TURBIN	CAPTIVE	OFECK REYCALED TWA EDITATIVE INDICATED				
TEST/REPORT NUMBER FAILED COMPONENT NAME	PROPULBION BHITDOM.	K,	ATP1-1,A3 BE HAIN LOK VALVE	FAILURE WODE-ENTERMAL LEAK, POST-TEST INSPECTION REVEALED THAT THE SE MAIN LOM VALVE HAS LEAKING AT 6 PSIG.	TION HAD ALICADY BEEN SECURED.		ź	EH-348/14-104-03-02A LOW LIGUID REGILATOR	FAILURE WOE-OUT OF TOLERANCE. PLANNED SETTING OF LOK LIGUID REGLLATOR REDUCED FROM 570 PSIG FOR PREVIOUS TESTS TO 40 PSIG FOR THIS TEST, SKE DP-785-1A/116-349-02A.	SYSTEM EFFECT-OPERATION TOO LOW. BI THRUST 127K LBS; BE THRUST 130K LBS AS COMPARED TO RATED THRUST OF 135K LBS. TH RUST CHANGER PRESSURES NERE 504 PAIA FOR BI, 515 PAIA FOR BE AS COMPARED TO NORMAL PRESSURE OF 530 PSIA. LON FLOW NA 8 470 LBS/SEC AS COMPARED TO NOMINAL 780 LBS/SEC.		NENT TEST INDICATED THAT A REGULATOR SETTING OF 500 TO 525 PSIG MAY BE NECESSARY TO PRODUCE FROM DODGETA ENGINES UNLINE THE BAROLDED BLADE TARBINES.	EN-514/111-07-03 61 TURGO PUPP, BEARING	FAILURE MODE-OUT OF TOLERANCE, A POST-RUM TURBOPUSP TORBUE OFECK REYEALED THAT THE BY TURBOPUSP BREAKAMY TORBUE AM D RUMHIMS TORBUE MERE EXCESSIVE, INSPECTION BY AM MA REPRESENTATIVE INDICATED IT WAS PROBABLY DUE TO A DEFECTIVE TU REINE BHAFT BEARIMS.				
SYSTEM S.GSYSTEM	WHICLE EFFECT-PREMIUME PROPULATION ANUTOOM	CORRECTIVE ACTION-UNENDAN.	PROPULSION-MAI-A/B BOORTER	FAILURE MODE-ENTERMI LEA	SYSTEM EFFECT-NONE-OPERATION	WAICLE EFFECT-NOIE.	CORRECTIVE ACTION-LAKNOLAL	PROPULSION-MA1-A/B BOOK TER	FAILURE MOE-OUT OF TOLERANCE, PLANNED SETTING OF 440 PSIG FOR THIS TEST, SEE DR-783-1A/110-8P5-DEA.	SYSTEM EFFECT-OPERATION TOO LON. BI THRUST 1ETK. RUST CHANGER PRESSURES NERE SOA PAIA FOR BI, 319 B 470 LBS/SEC AS COMPARED TO NONINAL 780 LBS/SEC.	WOHLLE EFFECT-NOME.	CORRECTIVE ACTION-SUBSEQUENT THE HONIMAL RATED THRUST PROM	PROFULSION-MAI-A/B BOOSTER	FAILURE MODE-OUT OF TOLER D RUMHING TORGLE MERE ENCE NOTHE BRAFT BEARING.	PYSTEN EPTECT-NOME.	WOHELE CPTICT-HOME.	CORRECTIVE ACTION-UNKNOWN.	

GENERAL DYNAMICS CONVAIR BIVIETON

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	DIFFICULTIES REVIEW-PROPULSION STRICH-AIRBORNE	LEION BYETEM-AIRBOR	¥				
8787EN 848-8787EN	TEST/REPORT MAGER FAILED COMPONENT NAME	DIF DATA SOURCE PART HUNGER	VEHICLE DATE DIF	VENICLE BITE PRI		VENDOR MANE VENDOR PART NO	
MOPUL 31 ON-141-478 BOOS TER	2C-7-201/P4-103-00-04 6A8 6EMERATOR, LINE	7.1 8 1	4.4 870-641	14/ETR 84.7	88		80
FAILURE MODE-FAIL DURING HICLE STABILITY. POSSIBLE OL.	FAILURE MODE-FAIL DURING OPERATION. REDUCED LOX PLOM TO THE BE TURBOPUMP RESULTED IN BE THRUST DECAY AND LOSS OF ME MICLE STABILITY. POSSIBLE CAUSES ARE MIGH ENGINE COMPARTMENT TEMPERATURES AND/OR VIBRATION, IMPARTED BY FLIGHT CONTR OL.	DE TURBOPUMP RESUL TEMPERATURES AND/O	TED IN BE R VIBRATIO	THRUST D.	CCAY A	6 LOSS OF VE	
SYSTEM EFFECT-OPERATION	SYSTEM EFFECT-OFERATION TOO LOM. BE THRUST WAS TOO LOM CREATING INBALANCE.	TING INBALANCE.					
אסאונית פעוננו-נספו פר	OF VENICLE STABILITY, VENICLE DEJINOYED BY RAMSE SAFETY.	BY RANCE SAFETY.					
CORRECTIVE ACTION-NO C	CORRECTIVE ACTION TO PROPULSION SYSTEM.	•					
PROPULSION-IN1-A/B BODDIER	De-437/104-0-4 Tubline	CAPTIVE	3A 3705£7	\$1/8YC \$0	20		244544
FAILURE MODE-STRUCTURAL ARTHEMY FIRE.	RAL. AT 54 SECONDS THE BE FUEL WILVE CHEN CONTROL LINE RUFTURED AS THE RESULT OF AN ENGINE COMP	EN CONTROL LINE RUP	TURED AB 1	HE REBUT	8	ENGINE COM	
SYSTEM EFFECT-OPENATION ON FROM SAS POMBS PER ED. TO E-SA.	SYSTEM EFFECT-OPERATION TOO MIGH. THE RUPTURE CAUSED THE BE FUEL VALVE TO CLOSE PARTIALLY UNION REDUCED THE FUEL P., OM FROM SAS FOUNDS FER SECOND TO 315 FOUNDS FER RECORD. THIS IN TURN INCREASED THE MIXTURE RATIO FROM E.3G LOK TO FU D. TO 2.54.	FUEL VALVE TO CLOSE IN TURN INCREASED	E PARTIALI THE MIXTU	T WIGH	PROPERTY OF THE PROPERTY OF TH	O THE FUEL PL.	
WENTCLE EFFECT-NOME.							
CORRECTIVE ACTION-UNKN	KHOLAY.						
PROPULSTON-NA1-A/B BODSTER	ED-466/31-107-£ PELAV	CAPTIVE	3.A \$70\$£2	\$1/8VC 0	99		*****
FAILURE HODE-FAIL DURIL	FAILURE MODE-FAIL DURING CPERATION. THE BOOSTER IGNITION DELAY CUTOFF TIMER INITIATED CUTOFF BECAUSE THE TCC 1641711 ON COMPLETE LIGHT MAIN STAGE START MELAY KTL C) DID NOT RECEIVE A SIGNAL TO DUENSIZE.	LAY CUTOFF TIMER IN EIVE A BIGGAL TO EN	17247ED CL DR612E.	MOFF BEC.	T 3801	E 1CC 16N111	
SYSTEM EPFECT-OFDRATION STOPS PREDATURELY.	H STOPS PREDATURELY.						
WHICLE EFFECT-FREMINE PROPULATION CUTOFF.	RE PROPULBION CUTOFF.						
CORRECTIVE ACTION-UNKNOWN.	olet.						
PROPULSION-NAI-A/B BOCO TER	EI-444/81,107-1 DETECTOR LINKS MIRE CONSECTOR	CAPTIVE	3.4 \$703£1	0 0	ភូមិ		•
FAILURE MODE-FAIL TO CO AT THE COMMECTOR.	OPERATE. THE DETECTOR MERE ACROSS THE BOTTON OF THE BOOSTER THRUST CHANGER APPARENTLY SHORTED	BOTTON OF THE BOONTI	ER THRUST	CHANGER	Zaveet	TILY SHORTED	
SYSTEM EPTECT-INFROPER	ER SISCRETE SISMAL. BODSTER ISMITION MAS NOT DETECTED BY THE BREAKING OF THE BETTECTOR LIME THEN	B NOT DETRETED BY TO	E DREAKILY	34T 90 8	DE TEC	TOR LIME THER	

GENERAL DYMMICS CONVAIR DIVIBION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-ATROCHE

							,
878TEH 846-878TEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART MUMBER	VENICLE DATE DIF	817E 110E 01F	PR! VEN	PRI VENDOR HANE OTH VENDOR PART NO	
EDY ALLOWING THE TUNITION	DETECTOR BELAY TIMER TO EMPIRE SCHERATING CUTOFF.	HERATING CUTOFF.					******
WHICLE EFFECT-PREDATURE	PROPULATION CUTOFF.						
N-786 P.A	u 1						
PROPULSION-MI-A/B BOOM TEP	EP-410/103 TUPO PUR-TRANSDUCTR	CAPT? VE	3A \$70314	SYCANCRE YES ROCKETOYNE 40.15 NO		£ 707 1Æ	4004
FAILURE MODE-FAIL DURING OPERATION. T MANE ACTIVATED UNTIL 8550 TO 8675 M RATION INDUCED BY THE MYDRAULIC PURE.	FAILURE MOE-FAIL DURING OPERATION. THE BI TURBORUMP OVER SPEED TRIP ACTIVATED AT A SPEED OF 8100 RPM. IT SMOULD NO T MANE ACTIVATED UNTIL 8550 TO 8675 RPM. ROCHETDINE MEMERENTATIVE BELIEVES THE TRIP WAS ACTUATED BY A LOCALIZED VIB RATION INDUCED BY THE WYDRAULIC PURE.	SPEED TRIP ACTIVATED WIATIVE BELIEVES THE	AT A SPEC TRIP MAS	0 0 6100 ACT-M-100	M. 13	T SHOULD NO	
SYSTEM CEPECT-OFFICATION (STOPS PREMIURELY. THE PROPULSION SYSTEM BHUT DOWN APPROXIMATELY 20 SECONDS BEFORE SOMEDILE	BYSTEN BHUT BOAR APP	POKI MA TEL 1	. 20 MCG	D3 8EFG	H SOMBUL	
WORLD EFFECT-PREDATURE	BOOSTER ENGINE SWITTENS. THE TEST HAS TERMINATED 20 SECONDS EARLY.	INS TERMINATED 20 8	TCORDS EV	ξ.			
CORRECTIVE ACTION-LINGUISM.	ž						,
PROPUS STON-MA1-A/B BOOSTER	EH-451 14,133 B1 THRUST CHANGER RESENEDATIVE COD- LING TUBES	CAPTIVE	\$180218	1.4/EDM 803 8.63	5 5 5 5	ROCKETDYNE	\$ \$
FAILURE MODE-STRUCTURAL-I ES MERE SPLIT IN THE THRES IN WHICH MAD BEEN A CHARACI	FAILURE MODE-STRUCTURAL-POST TEST INSPECTION OF THE BI THRUST CAMBER REVEALED THAT THELVE REGISERATIVE COALING TUB ES NERE SPLIT IN THE THROAT AREA. THESE RUPTURED TUBES COALD BE DUE TO THE CUMULATIVE MEDILT OF AN IGNITION EXPLOSION WHICH MAD BEEN A CHARACTERISTIC OF THIS CHAMBER DURING STARTS ON PREVIOUS TESTS.	UST CHANGER REVEALED D BE DUE TO THE CUMM ARTS ON PREVIOUS TES	7447 7461 ATT WE RES	NE PROEDE	BATIVE O	COLINE TUB	
SYSTEM EFFECT-OPERATION INC. THAT EVENTUALLY CAUSES	SYSTEM EFFECT-OPERATION STOPS PREDATURELY-THE PROPULSION SYSTEM WAS CHARACTERIZED BY ROUGH COMBUSTION IN THE B1 ENGINE THAT EVENTUALLY CAUSED ENGINE MANTOOM BY THE RCC CUTOPP SYSTEM.	TOTOS MAS CHARACTERS: P SYSTEM.	20 PT 180	3 to 100	71 OF 28	THE BY DIS	
WHICLE EFFECT-PREDMINE EN THE BY THRUST CHANGER	: BOOSTER ENGINE SHUTDOM- PREDATURE ENGINE SHUTDOM NAS CAUSED BY THE RCC CUTOFF HETHERS NA ACCELERORETER INDICATED SO 66 AT 2.65 SECONDS.	E DIGINE SHUTDOM IA.	CAUSED	N THE RC	CUTOFF	METHORK ME	
CORRECTIVE ACTION-UNKNOW							
Proful sign-M1-A/B Booster	20-7-007 PART E/14,124 LUBE OIL PRESSURE BATTON	CAPTINE	810018	1-4/EDM YES ROCKETOYNE NO NO 0	YES ROCI	LETOVNE.	1000
FAILURE MODE-FAIL TO GPU	FAILURE HODE-FAIL TO OPTRATE AT PRESCRIBED THE. THE LUBE OIL PRESSURE BAITON SIS NOT ACTUATE.	DEL PRESSURE BAETON	NO NOT A	TWIE.			
BYBTEN EPPECT-OPERATION	STOPS PREDATURELY. BOOSTER LUSE OIL CUTOFF RESULTED FROM THE BARTON HALFMETTON.	CUTOFF RESULTED FIR	M M M	TOW MALS	MC 710m.		~~~ ~
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CORRECTIVE ACTION-MENACE	E part non.						
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DIPFICUATIES REVIEW-PROPULSION STREET-AIRBORNE

sub-aratte PROPULATOR-MA1-A/B BOORTER						•	
PROPULS CON-NA 1 - A /B BOOD TER	FAILED COMORENT NAME	PART HUBER	DATE DIF	11ME DIF	0 M	WENDOR PART NO	
	DI-419/81,101 BOOSTER THEWT CHANGER TUBES.	CAPTIVE	8A 870410	BYCANORE	SYCANORE YES ROCKETBYNE NO		9800
FAILURE MODE-STRUCTURAL.	. POST TEST INVESTIGATION REVEALED 3 TUBE SCPARATIONS IN THE B1 THRUST CHANGES.	TUBE BEPARATIONS 1	# TMC B1	TRUET OU	20		
SYSTEM EFFECT-MOME.							
WAICLE EFFECT-HOM.							
CORRECTIVE ACTION-UNKNOW	M. MEMIP.						
PROPULSI CH-MS -4.78 BOOSTER	EN-395/14,101-1	CAPTINE	2.4 9.703.2.9	14/EDMR 7E8 NA 08 NO 0.11	YES NAA NO	•	16350
FAILURE MODE-OUT OF TOLES FOR BI MFV. 0.28 SEC FOR	FAILURE MOCE-OUT OF TOLEDESICE, MAIN FLEL WALNE CLOSINS TINES NENE FASTER THAN EXPECTED. CLOSINS TINES NENE D.29 MEC For 81 MPV, 0.20 MEC FOR 82 MPV, MA SIFEC NAS 0.35 TO 0.43 MEC.	IS NEITE FASTER THAN	COPECTED.	CLOBINE	THER WERE DIT	¥	
SYSTEM EFFECT-NOIC.						- · · ·	
WHAL OFET-HOE.							
CORRECTIVE ACTION-SUBSE	COMECTIVE ACTION-SUBSEMENT TESTS INDICATED PROFER REPRONSE TINES.	E 711E3.					
MOPULSTON-M1-A/B BOORTDR	EI-364/164-1 6m in Fuß. WLVE	CAPTIVE	3.4 9.703£1	₽-1/3TC	ND MAA-ROCKETDYNE		\$130
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STRTEN EFFECT-HOLE.							
WHAT BYET-101E.							
CORRECTIVE ACTION-VARION						-	
MOPULSION-NAI-A/B BOOKITR	28-7-067 PART 2/14,114-3 LUBE OIL PRESAURE BARTON	CAPTIVE	970313	**************************************	VES ROCKETOVNE ND		50000
FAILURE HODE-PAIL TO OFF	FAILUNG MODE-FAIL TO OPERATE AT PRESCRIBED TINE. THE LUBE OIL PREABURE BUITCH DID HOT ACTUATE DUE TO A BUITCH MALFU KTION.	ML PREADURE BASTON	DID NOT AC	TURTE DU	10 A BMB TON	2	
BYBTCH CPPECT-CPEDATION	STOPS PROMINELY. SOSSIEN LINE OIL CUTOFF RESILTED FROM THE BASTON MALFUNCTION.	CUTOFF RESULTED PR	On the sad	TON MALS	pection.		
SPICIE DIFECT-PREMIURE	E mora aton cytor.						
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PROPULSION-MI-A/B BOORTER	CIP-147/103-1 PATE PATE METER	CAPTIVE	3.A 9.70£1.0	8-1787C 4.81	20	YES ROCKETOVIE IND	
FAILURE MODE-OUT OF POLEDAMCE. THE SPECIFICATION STATES	LERANCE. THE TOTAL CLOSING TINE OF THE MIN PULL VALVES ME CATION STATES THE CLOSINS TIME TO BE 0.10 TO 0.1. METOMOS.	E MAIN PUEL WALVES :	ERC 0.21	* * * * * * * * * * * * * * * * * * *	9	VALVES MERE 0.21 SECONDS AND 0.16 SECONDS RE.	
SYSTEM CFECT-MOC.							
WONTELE EFFECT-MOME. CORRECTIVE ACTION-MARIDAN.	ğ						
PROPILATOR-HA1-4/8 BOOK TO:	De-347/103-1 never ower	CAPTIVE	370E10	91/87C 5.	ន្ទ		08
FAILURE MODE-OUT OF TOT	FAILUME MCSE-OUT OF TREBNANCE. STEADY STATE LOS PLON MAS REP LBS. PER SECOND INSTEAD OF 700 LBS PER SECOND AS EXPEC ED.	7 LAS. PER SÉCOIO 1	HISTEAD OF	35	ş	COMO AS EXPEC	
SYSTEM CIFECT-CHEMATIC	STRIEN EFFECT-CHERATION TOO NIGHT. THE LON-PURL HEITINGE RATIO WAS R.45 LINDTEAS OF E.25 PLUS ON HEIMUS & PCT.	O IMI E.ES IMPTLE	Q 2.23 A	5 5	3	Ž	
WOHOLE CPECT-MOM.	į						
POPULATON-MA1-A/B BOCK TER	D+347/103-1 herut cum@Dt	CAPTIVE	2 Sperie	34/8TC 0.4	55		į
FAILURE HODE-OUT OF TOLIDIANCE. AH A STAR" BETHEDE 0.4 AND 0.45 NECONDO.	FAILURE HOSE-OUT OF TOLEDANCE, AH ABNORMAL PASSBURE BURNE OF APPROXIMATELY 100 PBI IN THE B1 THRUBT ONLINEDA AT PUMP STARY BETHEEK 0.4 ARD 0.45 RECORDS.	P APPROXIMATELY 100	2 2 2 3	A 8: 138	8	WEGS AT PURP	
STREET COVECT-MOME. EPI	SYSTEM COVECT-MOME. EFFECT SEEN ON PLICHT CONTROL.						
WOHOLE DYECT-HOME.							
CORRECTIVE ACTION-VARIOUS.	O.61.						
PODETER	D647/100-1 RELAT	CAPTIVE	27 27 27 27 27 27 27 27 27 27 27 27 27 2	94°1	88		
PAILURE MODE-MEDIATURE	FAILURE HODE-MEDIATURE OPENATION. THE LON START TANK WENTED AT 1.20 SECONDS INSTEAD OF 2 SECONDS AS EMPECTED. THIS MAKE CAUSED BY A PAULTY MELAY CAUSING ON THE GROUND BUE TO EMPERATION.	AT 1.20 SECONDS IN	erta o	S SECONDS	2	PC CTED. 1418	
STANDS EFFECT-SCHE.							
WONTEL EPPET-HOME.							

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

avantes aug-avantes	TEST/REPORT NAMES.	BIP BATA SOURCE PART NUMBER	WOULDE BITE PRE DATE OTH V	WENDOR HANE WENDOR PART NO	
CORRECTIVE ACTION-THE II	CORECTIVE ACTION-THE NELAY BOX ON THE SROAD WAS INSTRUMENTED FOR THE MEXT TEST.	OTED FOR THE MENT TO	Ĭ.		188
PROPAL STON-MAI -A.A.	DF-147/103-1 RE TURBONUP	CAPTIVE	34 8-1/87C NO 8 S70E16 3 NO	ROCALTOTHE	9.
FAILURE MODE-OUT OF YOLK BROALD MANE.	LEBANCE. THE RE PURP ENCERED BEGO RPH. THE OWENERED TRIP BIB MOT ACTIVATE AT 6160 RPH AS 17	M. THE CHEMBER IN	IP DID MOT ACTIVATE AT 0	11 00 mPm 40 17	
STREET CFECT-OFCIANTION	# 700 m16m.				
WATCH EFFET-HORE.					
COMPECTIVE ACTION-HOME.					
274-174-00151008	28-7-067 PART B.115-1 SE CALINE TANBLIC ONDINCESS TRIP	CAPTIVE	970608 1-4/404A 7Es 803 80 1.00		57 OK 68
FAILURE MODE-EDBATTE OF	PERATION-FALLY BE THEIR ONDISTEED SALTON.	344 TQ.			
STREET-OFEIATION	H STOTS PROMITMELY-CHRATIC BE THREIME OVERSPEED BAITON CAUSED PREDATURE PROPULSION SAUTSCHA.	ACTING GENERATION D	AUSED PREDATURE PROPULS	SCH SHUTDOM.	
WONCLE EFFECT-PREDATUR	WAICLE EFECT-MEMBATHAR BOOKER EMAINE CUNDF.				
CONSECTIVE ACTION-UNDING.	3.E.				
PROPILATON-NA1-A/B BOOK TER	28-7-047 PART 2.111-1 HAIN LOZ MALM	CAPTIVE	961226 1-4/0048 TES P ROS NO	TES ROCIETBINE HD	150511
FAILURE MODE-FAILED TO	OFFINE AT PRESCRIBED TIME. THE PAIN LOP PALVE WAS PROCEN CLOSED.	ו רסב אוראב אוים צווסבו	N CLOSED.		
SYSTEM EFFECT-OPDATION OF THIS EMERIE.	I DOES NOT BTART-THE PROJECT MAIN LOR WALVE PAILUME TO OPEN RESALTED IN NOT ACHIEVING IGHITICAL	WLVE FAILUME TO OP	N NEMATED IN NOT ACHIE	VINE IEMITION	
WHELE STEET-FREENING	E MONLATON COTOTF.				
CORRECTIVE ACTION-USUADAR.	.				
AZLI OCCO S/T-THI-MOISTH-CHA	20-7-697/102-1 seats to mark	CAPTIVE	1A 24/87C 7ES 19 19012E1 10	YES ROCIETOVIC NO	
FATURE HOR-OFF OF SPECIALS.	FAILUME MIDE-OUT OF DETICIPIEATION. EN DEDNEWER RECORDEND INDICATE DISCREPANCIES IN THE HAIN LOK VALVE CLODING DEDUC MEELS.	DICATE DISCREPANCIE	IN THE MAIN LOR WALVE	COSTIN BESIE	
every over-use.					

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15 July 1966	BIPTICKTIES REVIEW-PROPULATON ATSTER-ATMODRIE	SION STATEM-AIMBOR	u			
87.8 TEN 846-878 TEN	TEST/MEDERT MUNEER PAILED COMPONENT MANE	DIP DATA BOLACE PART HURGE	WOIGH DATE 019	11T PRI	II VENDOR HANG	
Wester Pfet-1006.						••••
CORRECTIVE ACTION-LINEAR	(MOMB),					
PCCS TO	29-7-037/10E-1 BOOSTER CONTROL PAGNAMIC RESULATO R	CAPT! W	13.08 13.08 13.08	11.41C 15	TE BOCKETOVNE NO	į
FAILURE MODE-FAIL TO CO 6 TO 840 PSIG AT SMATHO TAKE PLACE WETHIN CHE	CEASE OFERATION AT PRESCRIBED THE. BOOMER CONTICL PRUMATIC RESULATOR PRESBURE, AFTER PEAKIN DOMN, DECKEARED SLOALY BACK TO ITB PRE-TEST SETTING AT 18 BECONDS. THIS DECKEASE NOULD NORMALLY E SECOND AFTER BUITDOM.	MENT METTING AT 18	ATIC MEGAL. MECONDO. T	ATOR PRESS	AE, AFTER PEALIN R NOULD HORMALLY	
SYSTEM EFFECT-GEBATIO	ION TOO LONG.					
Wolae Grect-106.						
CORRECTIVE ACTION-UNION	cacae.					
PROPULSTON-PAL-A/B BOORTER	29-7-057/10g-1 LOR LIGHTD RESULATOR VIDET VALVE	CATIVE	1	84.78TC TE	YES MOCKETOYNE	900648
FAILURE MODE-FAIL TO G	OPERATE. THE LOK REFULATOR WENT WAVE, WHICH WAS TO MAYE WINTED PREJUNTIC PRESSURE AT SMITDOM	WICH WE TO MAKE		UPBATIC PRES	ISLEE AT SHUTDOM	
STSTEM EFFECT-MOME.						
WOHOLE EFFECT-HOLE.						
CORRECTIVE ACTION-VARIA	uote.					
ACTION - NOT STANDED	28-7-057/10E-1 648 62/20A738 BLADE WLVE.	CAPTIVE	1.4 90 1881	81/87C YES	YES ROCKETOYNE NO	\$000
PAILURE MODE-OUT OF SHI ONLINE MEDUCHICE.	ppecipication. Ea acandres recorded indicate discredancies in the sas serenator blade we've cl	NCATE DIOCHEPANELE	3 M H 10 C	AS COCKAT	A BLADE WIVE CL	
evatos Orter-sos.						
WHELE OFEET-HOM.					,	
COMMECTIVE ACTION-UNKIN	uow.					
PROPERTY OF -4.18	2C-7-636/14,16E-35 8ee LOS BUPPLY L'SIE	CAPTIVE	229006	1-4/ED48 HO	ROCKETOVNE	·
Paltume MODE-OUT OF EM	CHARCTED TEST VALME. A MEVERNED PRESSURE GRADIENT IN THE LOK PEED LINE IS INDICATED SMORTLY DEF NO NEMERATOR LOST MAJEETTON PRESSURE WAS 60 PSI AND THE LOK VALWE SHAET PRESSURE WAS 30 PSI. THE	C GEADIGHT IN THE LE	71 004 X	# 15 1:010 17 PRE\$5000	ATED SHORTLY BEF	

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THIRT STATES THE PROPERTY OF THE PROPERTY AND THE MEASE TO THE MEASE THE PROPERTY OF THE BIT OF THE		DIFFICACIES REVIEW-TRUPOLEION SISTEM-RINDORKE	Wellow eleterationer			Ì		
TOTACT-CONTANGENTION, WITH REVELLE FLOW, FREE, was ALLORED TO FLOW INTO THE GAS GENERATED CONTINUE. IT TEXT-CONTANGENTION, WITH REVELLE FLOW, FREE, was ALLORED TO FLOW INTO THE GAS GENERATED CONTINUE. IT TEXT-CONTANGENT TO THE GROUND FLOW, FREE, WITH WAS ALLORED TO FROM THE GASONE FLOW TO FOR THE GASONE FLOW TO FROM THE GASONE FLOW TO FROM THE GASONE FLOW THAN THE FLOW THAT THAN DUE TO FAIR THAN THE FLOW THE GASONE FLOW THE GASONE FLOW THE GASONE FLOW THE GASONE FLOW THAN THE FLOW THAT THAN DUE TO FROM THE GASONE FLOW THAN THE FLOW THAT THAN THE FLOW THAT THAN THE FLOW THAT THAN THE GASONET THAN THE FLOW THAT THAN THE FLOW THAT THAN THE FLOW THAT THAN THE GASONET THAT THAN THE FLOW THAT THAN THE GASONER FLOW THAT THAN THE GASONER FLOW THAT THE GASONER FLOW THE BESTATOR WAS THE GASONER FLOW. IN THE ACTION-LANGUAGE CAPTY. IN THE ACTION-LANGUAGE CAPTY. IN THE ACTION-LANGUAGE CAPTY. IN THE ACTION-LANGUAGE FLOW THE THAT THAN THE GASONER FLOW THE BESTATOR WAS THE GASONER FLOW. IN THE ACTION-LANGUAGE CAPTY. IN THE ACTION-LAN	STATEM BUB-STATEM	TEST/REPORT MUNEUR FAILED CONFORENT MANE	DIF DATA BOURCE PART HUNGER	WENTCLE DATE DIF	111E DIF	E E	VENDOR MANE VENDOR PART HO	
LECTRICHEMENT OF THE GROUP FUEL WAS ALLORD TO PREWET WRITING OF THIS START TAKE. LECTRICHEMENT OF THE COLOR FUEL START TAKE MARINE TO PREWET WRITING OF THIS START TAKE. 1104-WAI-4-O TECH-DOMAIN START TAKE MARINE TO PREWET WRITING OF THIS START TAKE TO P. 1.55 1105-WAI-4-O TECH-DOMAIN START WALE. IMAGEMANT PAGE, PAGE START TAKE TO P. 1.55 1106-WAI-4-O TECH-DOMAIN START WALE. IMAGEMANT PAGE, PAGE START TAKE TO PROPER SACRAMENT. LECTRICH-CHORNING PROGRAMMENT. LECTRICH-CHORNING PROGRAMMENT. LECTRICH-CHORNING PROGRAMMENT. THE WALE START TAKE TO THE THINK OF THE THINTON PRICE LIKES TO PREMA TEST TO PROGRAMMENT. THE WALE START OF THE WALE THINK OF THE THINTON PETTER MADE TO PREMA TEST TO PREMA TEST. THE WALE START OF MICH. THE WALE SACRAMENT TO THE THINK OF THE THINTON PETTER LIKES TO PREMA METALTO DETTER ALLOSSOME TEST. THE WALE-AMBRITHMENT OF THE WALE START TAKE THIS WAS A LOW-WATER MADE TO PREMA METALTO DETTER TO PREMA M	COMMITTED IS ATTRIBUTED	TO ABHOPMAL CPETATION OF THE GROUP	D FUEL BYART TANK.					•
THE ACTION-WOLLY THE GROUND FUEL START THAN MARINE TO PREFET. WONTING OF THIS START THAN. THE ACTION-WOLLY THE GROUND FUEL START THAN MARINE TO PREFET. WONTING THE GROUND FROM THE GROUND FUEL START THAN DUE TO P THE GROUND FROM THE GROUND FUEL START THAN DUE TO P THE GROUND FUEL START THAN THE PREFET CONTINUENT FOR THE GROUND FUEL START THAN TO THAN THAN TO THAN THAN TO THAN THAN THAN THAN THAN THAN THAN THAN	SYSTEM EFFECT-CONTAINENT	TION, WITH REVERSE PLOM, PUEL MAS A	LLOADS TO PLOW INTO	7 CAS CA	MERATOR L	8	ICO CINE.	
THE CONTINUES OF CONTINUES AND THE STAFF THE S	CORRECTIVE ACTION-MODIFY	THE GROUD FUEL START TAIN MARIN	TO PREVE'T VENTING	OF THE 81	AZT TANK.			
THE FOCK-OUT OF EMPERIOD TEST WAS WENTED HERD WINDS THAT THE MADE PLANEDD. HE FORTICHEMITOR TOO LOUGH COUNTY HE HE MADE MADE PLANEDD. HE FORTICHEMITOR TOO LOUGH COUNTY. HE FORTICHEMITOR TOO LOUGH COUNTY. HE FORTICHEMITOR TOO TOO TOO TOO TOO TOO TOO TOO TOO	MOTULSICH-M1-4/8 BOOSTER	2C-7-036/14,10E-38 GROUND FUEL START TAIR	GPT 4	i	1-4/E04	20	ROCKETBYNE	95
HE STEET-OFFSATION TOO LOA. LOW PLEA FLOM MENALTED IN NOT BOOTSTRAFING THE PART, SIDE, THEREST CONTINUALLY DECR. LE STEET-CHEDATURE PROPALATES CITY ACTION-WHITE PROPALATES TOO HAS SAFETY AND THAT TARK TO TEST DIRECTIVE CONFIGURATION. CITY ACTION-WHITE PROPALATES TOO HAS SAFETY TO OFFSATION TO THE SAFETY TARK. THIS WAS A LOA-WHITE PLINES TO BREAK WERN INDEGRANTE INTO THE SAFETY THAN OFFSATION TO BREAK WERN INDICATED THE SAFETY THAN OFFSATION TO BREAK WERN INDICATED THE SAFETY THAN OFFSATION TO BREAK WERN INDICATED THE SAFETY THAN OFFSATION TO BREAK WERNATED IN INDITION DET COLOR-WHITE PROPALATED THOUSAND. CITY ACTION-WHITE PROPALATED TOWNS TO THE SAFETY THAN OFFSATION TO BREAK MENALTED IN INDITION DET COLOR-WHITE PROPALATED TOWNS THE TOWNS THAN THE CLOSING SIDE OF THE SAFETY TO BE SAFETY TO BE SAFETY TOWNS TO THE SAFETY TOWN TO SAFETY THE CLOSING SIDE OF THE SAFETY TOWNS THE WESTER TOWNS THE CLOSING SIDE OF THE SAFETY TOWNS THE SAFETY THE SAFETY THE SAFETY THE SAFETY THE SAFETY TOWNS THE THE SAFETY TOWNS THE SAFETY TOWNS THE SAFETY THE SAFETY TOWNS THE SAFETY THE SAFE	FAILURE MODE-OUT OF EIGH MOCEDURAL EMODE. THE GFS1	ECTED TEST VALUE. IMADENIATE PLEI, P. T.	LOV IAS SUPPLIED FRO AMED.	H 74E CROU	2 PEL 0	TART	TAME DUE TO P	
CITY ACTION-WER WOUND FULL START TARK TO TEST DIRECTIVE CONTIGURALION. CITY ACTION-WERE WOUND FULL START TARK TO TEST DIRECTIVE CONTIGURALION. CITY ACTION-WERE WOUND FULL START TARK TO TEST DIRECTIVE LINES FAILED TO BEEAN WEB INACCOUNTY TOWN WAS WOUNDED. FLOW WAS WATHER CHOOSE AND PARENCINED THREE THIS WAS A LON-WATER BLOODOM TEST. AN EXTECT-OFFICIAL TO OFFICIAL STORY THREE THIS WAS A LON-WATER BLOODOM TEST. AN EXTECT-OFFICIAL STORY PROMINED. TO FILLING OF THE SHALTED IN IDMITTION DET FOR WAS ACTION-WENDER. CITY ACTION-WENDER. AN EXPECT-WOOD THE WINNESTION. AN EXPECT-WOOD THE WAS DATED. THE ACTION-WENDER. AN EXPECT-WOOD THE WAS DATED. THE ACTION-WENDER. THE ACTIO	SYSTEM EFFECT-OFCIATION EASING NAME SYCED AND PER	TOO LOW. LOW PUEL PLOW RESULTED IN	HOT BOOTSTRAPING TH	C PAG. 810	E, MORE	8	NTIMMLA DECR	
TOTATE ACTION-WHE WROUND FIG. START TARK TO TEST TORN TO TEST TARK TO TEST TOWN TO TEST TARK THE TEST TARK THE TEST TARK THE TEST TARK THE TARK THE TEST TEST TARK THE TEST TEST TARK THE TEST TARK THE TEST TEST TARK THE TEST TEST TARK THE TEST TEST TEST TEST TEST TEST TEST	WONCHE EFFECT-FREMIUM	E PROPULATION CUTOFF.						
IGHT WITHOUT DETECTOR LIBER FOR HOSE FOR HOS		BROWD FUEL START TANK TO TEST DIRE	CTIVE CONTIGURALION.					
L'TO CHERATE AT PRESCRIED THE. THE IENTITON DETECTOR LINES FAILED TO BREAK WED INDOCUMTE ICHITE DUFTED TROOP THE GROUND FUEL START TAKE. THIS MS A LOK-WITH BLONDOM TEST. CHATICH STOPS PREDATURELY. FAILURE OF THE ISHITION DETECTOR LINES TO BREAK RESALTED IN IGHITION DETECTION STORY. BENATURE FROM LARGE VECTOR CHOOF. FRAMESENCY. FRAMESENCY. FRAMESENCY. FRAMESENCY. FRAMESENCY. FRAMESENCY. FRAMESENCY. FRAMESENCY. SAME-ETITEMAL, A BLIMAT WITHAULIC LEAR WAS FOUND AT THE CLOSING SIDE OF THE BUSTAINED GAS EDUCATOR WE FORT TEST INSTECTION. FRAME. ONE. FRAMESENCY. FRAMESENCY. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. FRAMESENCY. SAME-ETITEMAL. SAME FORT TEST INSTECTION. SAME-ETITEMAL. SAME-E	 PROPULSTON-INT-A/B	RC-7-030/14.10E-18 IGATITA DETECTOR LINES	CAPTIVE		1-4/ED44 403 0	ž õ		į
CUTON STOPS PREDATURELY. FAILURE OF THE 184171CH DETECTOR LINES TO BMEAN RESALTED IN 184171CH DETECTOR. HENDATURE PROPALATOR CUTOFF. H-UNEUCHI. FTARDSS/F4-402-00-10 FTARDSS	FAILURE HONE-FAIL TO ON	DATE AT PRESCRIBED THE. THE TENT FROM THE GROUP FLEE START TANK.	TON DETECTOR LINES PAIS MIS MAS A LON-MATER	ATLED TO B	REAK 160	1	DEGLATE I CALITE	
MEMORE MONLATION CUTOT. M-UNCLOSS. FIRE 100 14/ETR YES ROCKETOTIC MALWE-PROPELLATT-SEC BLACE MLWE 5000 14/ETR YES ROCKETOTIC MALWE-PROPELLATT-SEC BLACE MLWE 5000 AT THE CLOSINS SIDE OF THE BUSTAINED GAS GEDERATOR ME. ME. ME. ME. ME. ME. ME. ME	 SYSTEM EFFECT-OFENATION ECTOR DELAY TIMER CUTOFF.	STOPS PREDATURELY. FAILURE OF THE	1441710N DETECTOR L.1	MES TO BARE	AN RESULT	ē	N IGHITION DET	
PTARDSS/F4-402-00-10 PTARDSS/F4-402-00-10 WE WE WE WOULLANT-SEC BLADE WILVE SASE-EXTENSIL, A BLISHT WYDANILIC LEAK WAS FOUND AT THE CLOSING SIDE OF THE BUSTAINED GAS GENERATOR WE NOT TEST INSTECTION. ME. DOE. PAGE 5019	 WOLLE STEET-MENTAL	E MOPLEATON CATOFF.						
PTARGOS-774-402-00-10 WE WE FROM 14/ETR YES NOCKETOYNE WAS WE FROM 14/ETR YES NOCKETOYNE WE FROM YEST IMPRECION. WE FOR YEST IMPRECION. DOC. PROPED LEAK.	 CORRECTIVE ACTION-LABOR	ė.						1
FORT YEST INSPECTION.	 PROPULSICH-IM1-A/B PUBTAINER	FTAGDS L/F4-4GE-00-10 WALWE-PROPELLANT-866 BLADE WALVE	ŧ	8	11/CH	20	ROCACTOVIC	****
70 JA.	 PAILURE MODE-LEARANG-ENT BLADE WLVE DURING THE I	TERMA. A BAIMHT MTRANAIC LEAK WAS PORT TERT IMPRESTION.	FOUND AT THE CLOSIN	a site of	TAL BURT	ğ	CAS EDICRATOR	
78 CAK.								
PRO LEAR.	WHICH OTET-HOM.							
910G 301A		B CCAR.						
0100 3044								
						1	PA46 9010	_

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	DIFFICULTIES INVIEW-PROPERTY STORES AND INCOME.	CPULLION SYSTEM-AIREO					,
8787EN 84 0 -3737EN	TEST/REPORT NUMER FAILED COMPONENT NAME	DIF DATA SOURCE PART HUBER	VENICLE DATE DIP	WONICLE BITE DATE DATE DATE	- E	PRI VENDOR NAME OTH VENDOR PART NO	_
FROPULSION-NA1-A/B SUSTAINER	2C-7-EE3/PE-303-00-11 HEADGUFFRESS! ORYAL'NE, SER VO	Patent	11C 990884	12.Cm	ž e	TED ROCKETDYNE MO	***
FAILUME MODE-OUT OF EX MER EMBINE THAN EXPECTE . LOX COMBUNATION NOT C	FAILUME MOSE-OUT OF EXPECTED TEST MALME, OPERATION OF MEAD BUPPRESSION VALWE FAULTY CAUSING LESS LOX FLOM TO SUSTAI MER EMGINE THAN EXPECTED. SUSPECTED INCORNECT SETTING OF MS SERNO CONTROL VALWE MACH REPLACED BETWEEN FRY AND PLIGHT . LOX CONSUMPTION NOT COMBISTERY METRY VALME OPERATION.	ND SUPPRESSION VALVE FAULTY CAUGING LESS LOX PLON TO SUSTAI 45 BERVO CONTROL VALVE WHEN REPLACED BETWEEN FRF AND PLIGHT	AULTY CAU	1116 LE88 JACED BET	3 2	flow to sustail fire and flicht	
SYSTEM EFFECT-OPERATION TO AND USE OF ALL BURNABLE PLEI	SYSTEM EFFECT-OPCIATION TOO LOM, LOK PLOW TO BUSTAINER EMBINE LESS THAN EXPECTED REDULTING IN LOW BUSTAINER THRUST NO USE OF ALL BURNALE PLES. BY SECO.	WINE LESS THAN EXPECT	D REPART	3 H H	1	TAINER THRUST	
WAICLE EFFET-HOME.							
CORRECTIVE ACTION-MEXICAN.	ie.						
PROPULSION-MAI-A/B BUSTAINER	FTABD48/PE-501-00-11 OFECT MALWE	1 4	110	18/EM	20		**
FAILURE MODE-FAIL DURI EL TO RELIEVE THROUGH V CAUSING A FIRE.	FAILURE MODE-FAIL DURING OPERATION, ONE OF POUR CHECK VALVÉS IN THE PUEL INJECTICN PURCE SYSTEM FAILED, ALLOHING P EL TO RELIEVE THROUGH VENT PORT OF PUEL INJECTOR PUNCE BOLEMOID INTO THRUST SECTION NEAR SUSTAINER ENAUST DUCTING, CAUSING A FIRE.	WALVES IN THE FUEL INJECTION PURCE SYSTEM FAILED, ALLOWING FU BOLENDID INTO THRUST SECTION NEAR SUSTAINER ENAUST DUCTING,	TION PURG	SVSTEN SUSTATIO	3 2 2	D, ALLONING FU AUST DUCTING,	
BYSTEN EFFECT-NONE.							
WAICLE EFFECT-FIRE.							
CORRECTIVE ACTION-GARIDAM.	GA.						
PROPULSION- HAS - A/B BUBTATHER	NTDESS-0250-A/1A-30E THERUST CHAIBER, TUBES	CAPTIVE	9603£7	1A/COMMR 03 0.8	5 5	1A/EDNAR YES ROCKETDYNE DS NO 0.8	=======================================
FALLURE NODE-ERRATIC OFFIATIVE NIGHT FRESSURE	FAILURE HODE-ERRATIC OPDIATION. IMMUNILLY WIGH VIBRATION LEVELS NERE EXPERIBNED BY THE SUSTAINER ENGINE. WE HIGH FREGUENCY FRESSURE TRANSIENTS IS UNUNDAN.	LEVELS NERE EIDERIEN	₩ 10 83	BUSTA INE		INE. CAUSE OF	
SYSTEM EFFECT-LOSS OF STRUCTURAL AN ADJACENT EXTERNAL PUEL COOLENT EXAMINE.	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. POST TEST INSPECTION REVEALED A RUPTURE OF THE -31 STIFFENING BAND AND AND AND AND EXTERNAL PUEL COOLENT TUSE SPLIT IN THE SUSTAINER EMEINE. APPEARANCE OF SPLIT INDICATED RUFTURE UNDER PASSUME.	JPECTION REVEALED A RU INER ENGINE. APPEARANC	PTURE OF T	NE -91 S	11 PT 6	NING BAND AND PTURE UNDER PR	
VOICLE EPTECT-FIRE, AT 20. But with a REVDRE ERRUGION WHICLE.	VONICLE CPTCCT-FIRE. AT 20-5 DECOIDS A MINOR EXPLOSION POLLONED BY A PUEL RICH FIRE OCCURRED IN THE ENGINE COMPARTN Hy with a revere explosion in the Embine Compartnent area at 43 seconds which cultimated in the destruction of the Emicle.	MICHED BY A PUEL RICH AT 45 SECONDS WICH	FIRE OCC.	RRED IN IN THE	Te C	NEINE COMPARTH UCTION OF THE	
CORRECTIVE ACTION-RECOVERS	MMENDATIONS FOR CORRECTIVE ACTION ARE PRESENTED IN BOUNCE REPORT, PAGE 11.	ARE PRESENTED IN BOURCE	C REPORT,	PAGE 11.			
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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-41RECANE	SION SYSTEM-41 MOOR	¥			
3737En 94 6 -3737En	TEST/REPORT NUMBER FAILED CONFORENT NAME	DIF DATA SOURCE PART NUMBER	WENTCLE BITE PRI	BITC PRI	VENDOR NAME VENDOR PART NO	
PROPULSION-MI-A/B SUSTAINER	24-7-218/72-303-00-04	FLIMIT	4C 12/ETR \$801E7	TR VE		12861
FAILURE MODE-OUT OF EIDER INCREASING TO 10,500 PO ROFELLANT PLOM RATES DUE ON COMDITION.	FAILURE WOSE-OUT OF EIDECTED TEST VALUE, AFTER STAGIMS SUSTAINER THRUST HAS 7000 FOUNDS BELOW WORLMAL WITH THE ERRO Increasing to 10,500 Founds at 235 seconds. This was apparently due to a low mixture ratio (1,9 to 1,64) and low propellant plow rates due to the Pobliton of the sustainer main plant values which mene correcting for a fuel rich condition.	THER THRUST HAS TO PERLY DUE TO A LOW IN FLOWLING WALVE	DO FOUNDS BELD MIXTURE RATIO B MAILON MEDIE C	M NONTHA (1.9 TO CRRECTIN	L WITH THE ERRO 1.54) AND LOW P IF FOR A FUEL RE	
SYSTEM EFFECT-OFERATION	1700 LOM. BUSTAINER ENGINE THRUST WAS APPROXIMATELY 15 PERCENT LOM BY 235 SECONDS.	A APPROXIMATELY 15	PERCENT LOU BY	238 SEC		· ·
WENICLE EFFECT-PREDATURE UE TO LOS BEPLETION.	WENICLE EFFECT-PREDATURE BUSTAINER EMSINE BNUTDOM, BUSTAINER/VERNIER EMSINE BHVIDOM OCCURRED 5.00 BECONDS EARLY D E to lor depletion.	CAZVERNIEN ENGINE D	HUTDOWN OCCURR	8 8 8	SECONDS EARLY D	
CORRECTIVE ACTION-LINENGEM.	i					
MOTULATOR-MAI-A/B	F744907F1-201-00-11	ř	118 11/ETR 590120		YES ROCKETDYNE NO	98.25
FAILURE MODE-OUT OF TOLE ED MAS EO MILLISECOMOS FA	ERANCE. THE TIME FOR SUSTAINER GAS GENERATOR BLADE VALVE CLOSING CONTROL SIGNAL TO FULL CLOSS ASTER THAN THE HINIMAN SPECIFIED TIME.	DERATOR BLADE VALVE.	E CLOOSING CONT	ROL SEE	ML TO FULL CLOS	
BYSTEH DFFECT-OFFICATION	STOPS PREMATURELY. SEE PROPELLANT PLON WAS SHUT OFF HORE RAPIDLY THAN SPECIFIED	LON MAS SHUT OFF HO	RE RAPIDLY THA	H 84EC16	.69.	
WHICHE BYTECT-NOIE.						
CORRECTIVE ACTION-THIS NOS NOT CONSI	WES NOT CONSTOCRED A MAJOR DIBORCPANCY SINCE SAG VALVE CLOSING PRECEEDED THAT OF THE SUSTAIN ICTORY MARGIN.	CY SINCE BGG VALVE	CLOSING PRECES	E E	OF THE BUSTAIN	
PROPULSION-MAS-A-B BUSTAINER	FTA4517/P4-202-00-13	COUNTD'SAM	138 14/ETR 501E30 -E400	TR YES 0 MO		•6539
FAILURE MONE-ERRATIC OF	FAILURE MODE-ERRATIC OPERATION. SUSTAINER OMER SPEED TRIP SIGMAL AFTER ENGINE RESET DURING THE LOOP TEST.	ISHAL AFTER ENGINE	RESET DURING 1	₩ 1009	TE 3 T.	
SYSTEM STRECT-IMMONER D	DISCRETE SIGNALS. PROPULSION RECEIVED SUSTAINER OVERSPEED TRIP SIGNAL AFTER ENGINE RESET DUR	S SUSTAINER OVERSPE	ED TRIP SIGNAL	ATICA	DIGINE REDET DUR	
WENTELE EFFECT-COUNTDOM	WENTELE EFFECT-COUNTDOM DELAYED. 15 HIMUTE HOLD.					
CORRECTIVE ACTION-A CINC	NOTTRY CHECK WAS PERFORMED. NO IMPEGULARITIES DISCOVERED. RESUMED COUNT.	LARITIES DISCOVERE	D. RESUMED CO.	NT.		
PROPULSION-941-4/8	FTA 4512/F4-E01-00-18 Bustainerflelvalve, beal	186	134 14/ETR	TT YES		
FAILUPE MODE-LEAK-ENTERN FLAME DUCKET, CAUSE OF T	HAL. THE BUSTAINER PLEL VALVE RESEATED INPROPERLY, CAUSING A LEAK AND A POST RUN FIRE IN THE THE HUTSOPER SEATING WAS A BROKEN LIP SEAL.	D INPROPERLY, CAUS P SEAL.	116 A LEAK AND	\$	RUP FIRE IN THE	

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DIFFICULTIES REVIEW-PROPULSION STREEM-AIRBORNE

	CITTLE SEVIES TRUISSING STOLEN STOLEN	WESTON STREET, AINBON					1
373TEH 346-373TEH	TEST/REPORT MUMBER FAILED COMPONENT WANG	DIF BATA SOUNCE PART NUMBER	VEHICLE DATE DIF	917E 11ME 01F	£ 2	DATE DIF THE DIF OTH VENDOR PART NO	
BYBIEN EFFECT-HOM.							••1100
WOHELE EFFECT-HOME.							
CORRECTIVE ACTION-URNOWN.	•						
PROPULSION-MI-A/B SUSTAINER	FTAASEE/PL-CGE-00-9 864.ONFEGUATOR (802.TS	FRF	98 981024	11 /ETR	4 G		• • •
FAILURE MODE-FAIL DURING REFELD WAS CAUSED BY A POOR BEING LOOSE.	HAS OPERATION. A SUSTAINER PURP OVERSPEED CUTOFF WAS SIGNALED AT PLUS 1.5 SECOND. THE PURP OVE POORLY REGULATED SGG LOX PLOM. POSSIBLE CAUSE WAS THE MOUNTING BOLTS OF THE SGG LOX REGULATOR	WEED CUTOFF WAS SICA BLE CAUSE WAS THE MC	ALED AT PLUMITING BOL	H 0.1 50	998 1	. THE PLUS OVE LON REGULATOR	
SYSTEM EFFECT-OPERATION S	SYSTEM EFFECT-OPERATION STOPS PREMATURELY. A BUSTAINER PLUP OVERSPEED CUTOFF.	P OVERBPEED CUTOFF.					
VENICLE EFFECT-COUNTDOM ABORTED AND RESOURDILED.	ABORTED AND RESCHEDULED.						
CORRECTIVE ACTION-NEPLACE	SEE LOK PLOW RESULATOR AND ASSOCIATED CONFORMAS.	TATED COMPONENTS.					1
PROPULSION-MAS-A/B BUSTAINER	F74311/P1-201-00-8 648 GDEJATOR	علاد	96 961014	11 ÆTR 0	7.E8	YES ROCKETDYNE NO	90190
FAILURE MODE-OUT OF TOLEN	FAILURE MODE-OUT OF TOLERANCE. BUSTAINER ENGINE SID NOT CONE UP TO OPERATING LEVEL DUE TO AN OBSTRUCTION AT THE BEP AATION FITTING OF THE BAG LOK START LINE. THIS CAURED LOK STARVATION TO THE BAG.	DE UP TO OFERATING L BTARVATION TO THE SC	EVEL DUE TO	AM 085	TRUCT	ION AT THE SEP	
STREET CITECT-OFERATION T	STSTEM EFFECT-OPERATION TOO LOW. SUSTAINER EMSINE CAME UP TO OPERATING LEVEL.	TO OPERATING LEVEL.					
VEHICLE EPTET-HOME.							
CORRECTIVE ACTION-REPLACE	CORRECTIVE ACTION-REPLACE SEPARATION FITTING AND 866 LOW REGULATOR.	ecula for.					1
PROPULSION-MS-A/B SASTAINER	F74311/P1-E01-00-0 LOWEGUATOR	16	\$\$ \$ 6 1014	11/ETR 1200	46		*
FAILURE MODE-OUT OF TOLER	FAILURE MODE-OUT OF TOLERANCE. SUSTAINER LOW REGULATOR REFERENCE PRESSURE WAS 838 P816. REDAINE IS BRY P816.	INDICE PRESSURE INS	036 P816.	KOLIK	# #	. 1016.	
BYSTEM EFFECT-OPERATION T	BYSTEM EFFECT-OPERATION TOO HIGM. SUSTAINER LOR RESULATOR REFERENCE PRESSURE WAS TOO HIGM.	RETERENCE PRESSURE S	M\$ 700 HIG	÷			
VENICLE EFFECT-COUNTDOM	WHICLE EFFECT-COUNTDOWN DELAYED. MILD TIME SA MINUTES, RECYCLE TIME 28 MINUTES.	CYCLE TIME 88 MINUTE	÷				
CORRECTIVE ACTION-REALT R	ET REGULATOR BETTING.						
							
						PA4E 0022	-1
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GENERAL DYNAMICS CONVAIR DIVISION

DIFFICULTIES REVIEW-FROPULBION SYSTEM-AIRBOLNE

19 JUN 1966

818-EN 818-813EN	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VENICLE DATE DIF	\$17E 710C DIF	1 E 0	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
PROPULSTON-HA1-A/B BUSTATHER	28-7-978/11-204-C1-07	CAPTIVE	78 541007	1-1/EDUM NO RDS NO E3.53	55		
FAILURE MODE-PREMATURE ON COMBUSTION CUTOFF DI	PAILUME MODE-PREMATURE OPERATION. PREMATURE ENGINE BHUTDOMN OCCURED BUE TO SPURIOUS ACTIVATION OF THE SUSTAINER MOU SM COMBUSTION CUTOFF DEVICE CAUSED BY A LOOSE SOLDER COMMECTION IN THE GROUND UMBILICAL PLUS F1005.	OAN OCCURED DUE TO BPT ECTION IN THE GROUND (MIOUS ACT	1VAT1OH OF PLUG P1009	¥ .	USTATINEN ROU	
SYSTEM EFFECT-OFERAT	STREET EFFECT-OFFRATION STOPS PRENATURELY.						
WHICLE EFFECT-MEM	WAICLE EFFECT-PREMIUME PROPULSION CUTOFF.						
CORRECTIVE ACTION-REPAIR PLUS.	PAIR PLUG.						
PROPUL 3 CON-MA1 - A / B BUSTA INER	28-7-079/11-204-C1-07 hæust Gunger	CAPTIVE	3000 6	1-1/EDMA RD 8 01.70	5 S		***************************************
FAILURE MODE-FAIL DUR. TLY AS A RESULT EITHER	FAILURE MODE-FAIL DURING OPERATION. THE SUSTAINER ENGINE PERFORMANCE MAS BELOM MONIMAL THROUGHOUT THE TEST, APPAREM LY AS A RESULT EITHER OF A RESTRICTION IN THE SEG LON PEED LINE OR A MALPUNCTION IN THE LON REPERENCE REGULATOR.	PERFORMANCE IMA BELION ZED L'INE OR A MALFUNCTI	OH IN THE	THROUGHOUT LOX REPER	1 34 E	EST, APPAREN EGULATOR.	
SYSTEN EFFECT-OPERAT	SYSTEM EFFECT-OPERATION TOO LOM. LOW SUSTAINER OPERATION RESULTED IN ROUGH COMBUSTION CUTOFF.	REBULTED IN ROUGH CO	BUSTION C	MOFF.			
VENICLE EFFECT-PRIDA	VENICLE EFFECT-PREMIUME PROPULBION CUTOFF.						
CORRECTIVE ACTION-LINENDAM.	RICHI.						
PROFULSION-NAI-A/B AUBTAINER	ZB-7-079/38-217-C4-01 PROPELLANT UTILIZATION VALVE	CAPTIVE	18 9 606 20	32/8VC 2	TES RO	TES ROCKETDYNE	
FAILURE MODE-OUT OF SPECIFICATION. COMBUSTION IN THE BUSTAINER EMEINE.		PLOW RESPONSE OF THE PU VALVE TO HOVE TO THE CONTROL MOBITION RESULTED IN ROJAH	E CONTROL	HOB1110H	RESMA.TI	ED IN ROUGH	
BYBTEM EFFECT-ERRATIC	C OPERATION. ROUGH COMBUSTION IN THE SUSTAINER ENGINE.	SUSTAINER ENGINE.					
VENICLE EFFECT-PREMA PRC COUNT.	VENICLE EFFECT-PREMATURE PROPULSION CUTOFF. THE TEST WAS AUTONATICALLY TEANINATED AS A RESULT OF AN ACCUMILATION OF RCC COUNT.	AUTOMATICALLY TERNING	TED A8 A 1	RESULT OF	AN ACC	UNICATION OF	
CORRECTIVE ACTION-LARINDAM.	(NOM).						
PROPULSTON-NAT-A/B BUSTATINER	ZD-7-079/RE-E10-C4-01 PROFELLANT UTILIZATION VALVE	CAPTIVE	1.0 9.0001.0	ME/BVC 0	5 Q	YES POCKETOYNE	.
FAILURE MODE-FAIL TO	PAILUME MODE-PAIL TO OPTRATE AT PREMENSED TIME. THE PROPELLANT UTILIZATION VALVE DID NOT OPEN. RECORDS INDICATE TH E OPENIMS SIGNAL MAS SENT AND POST TEST PUNCTIONAL CHECKS INDICATED NORMAL OPERATION OF THE VALVE.	PELLANT UTILIZATION VA	ATION OF	OV OPEN. R.	ECONO.	INDICATE TH	
BYBTEN CPPECT-OPERATI	STSTEM EPPECT-OPERATION STOPS PREMIUMELT. THE ISMITTON BETECTOR DELAY TIMER EXPIRED WHEN THE BETECTOR LINKS DID NO	DETECTOR DELAY TIMER I	W Child	DA THE DET	1C 708	LIMES DID NO	

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NATER AVATER AVATER WENTELE EFFECT-PREMATURE PROPERTY CORRECTIVE ACTION-UNRINGE, RE BANAL OPERATION OF THE VALVE, STATISER OFFECT-PREMATURE PROPERTY WENTELE EFFECT-PREMATURE PROPERTY WENTELE EFFECT-PREMATURE PROPERTY CORRECTIVE ACTION-THE EMBINE STATISHER PROPERTY CORRECTIVE ACTION-THE EMBINE STATISHER PRECT-HOME. WONTELE EFFECT-HOME. STATISHER PROPERTY CORRECTIVE ACTION-HOME. TESTS FALUME NODE-FAIL DURING OPEN STATISHER NOTECT-OPENATION BYOPS STATISHER RETREATMENT OF SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAMER SAM	DIF DATA SOURCE VEHICLE SITE	MENT WANK PART MUMBER DATE DIF TIME DIF OTH VENDOR PART NO	DPULBION CUTOFF. PECOND INDICATE THE OPENING ALGUAL MAS MENT AND POAT-TEST FUNCTIONAL CHECKS INDICATED M		1034742-214-C4-01 CAPTIVE 19 6-2/8VC YES ROCKETDVNE 896504 STAINER INJECTOR 18MIYER 8PRAY D 560731 0.89 NO	Dia Ti Odi.		presion cutoff.	E WAS REPLACED.	MADEL/FS-ECO-01-04 COMPOSITE-B FACT 48 13/ETR YES ROCKETDYNE 885370	FAILURE MODE-OUT OF TOLEDAMCE. BLACK IN BUSTAINED GINGAL BLOCK CREATED & CPS OSCILLATIONS IN THE YAM SERVO LOOP DUR			IS SWINED THAT BLACK OCCURRED ONLY LADER NO THRUST CONDITIONS AND NOALD NOT EXIST DURING	FTAAGI: /PL-EGS-30-3 FMF 36 .1/ETR YES 693340 CIRCUTY, BUBTAINER BFEED THIP 560427 FLUS 1.0 YES	FAILUME MODE-FAIL DURING OPERATION, CAUSE MOT DETENDINED, AFTER SIMILAR CUTOFF DURING TEST P1-E02-00-3 THE SPEED SE MACH IN ENGINE GROUND BOX WAS DISABLED AND ANDTHER INSTALLED IN BLOCKWOURE, SUPPLY YOUTGE TO SPEED SENSORS WAS STAB LE. A SIMILAR SIGNAL WAS OBJERNED ON TEST P1-ED4-00-3 WHERE NO LPTEED SENSORS WAS EDUBALED TO PRODUCE CUTOFF.	PRESENTABLIT. AFTOMATIC SHUTDOMI. LAND LINE OSCILLOSBAPH SHOUED PLUP SPEED HORMAL.	PULAICA CUTOFF.			
NAMES NAMES NOTECTIVE ACTIONS WHICLE EFFECT-CORRECTIVE ACTIONS WHICLE EFFECT-CORRECTIVE ACTIONS WHICLE EFFECT-CORRECTIVE ACTIONS NAMES TO PRECT-WASTERNAMES NAMES TO PRECT-ON WENCE TO PRECTO W		TA FATLED COMPON	VENICLE EFFECT-PRENATURE PROPULSION CUTOFF, CORRECTIVE ACTION-LAKINOME, RECORDS INDICATE	CHAL CICKATION OF THE VALVE.	MOPULATON-MAI-A/B EN1034/42-E14-C4-01 SUSTAINER INJECTOR 186	PAILURE MODE-FAIL BURING OPERATIONS.	SYSTEM EFFECT-EMANIC OFFICATION.	WENCLE EFFECT-PREMIUME PROPULATION CUTOFF.	CORRECTIVE ACTION-THE DIGINE WAS REPLACED.	PROPULSION-HAI-A/G FTA4061/P3-ECO-01-04	JT OF TOLERANCE. SLACK IN BUSI	STSTEM EFFECT-MOME.	WHATE EFFECT-HOME.	CORRECTIVE ACTION-NOWE. TESTS SWIMED THAT BE	PROPULSION-IM1-A/B FTAAO1: /P1-E03-30-8 BUSTAINER CIRCUIT, BUSTAINER	FAILUME MODE-FAIL DARING OPERATION, CAUSE NO MOON IN ENGINE GROUND BOT MAY DISABLED AND AN LE. A SIMILAR SIGNAL WAS ORNERWED ON TEST PI-	SYSTEM CPFECT-OFDATION STOPS PREMATLE. A	WHICH EPPET-MEMTURE PROPULATION CUTOFF.	COMPLETT WE ACTION-MAINDING.		

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	EIFFICE.TIES METIEN-PROPULSION STSTEP-AINDONE	Paratum ataten-atagon	Ä				
 872724 846-87273	TEST/METOST MANGER FAILED CONFORTH MANG	DIF DATA BOUNCE PART NAMBER	WENICLE DATE DIP	11 E 91F		PRI WENDOR MANE OTH WENDOR PART NO	
 AZHIVISHE B/V-TWI-HDISTHADAN	CP-1634-28-211-64-01 SWINE SEAL	כישות	110 26061	1.05	2.8	TES ROCAETBYNE	2
 FAILURE MOE-LEAR EXTERN 844 INCTOR MEND AND INC	FAILURE MOSE-LEAR EXTERMAL. THE LOE BLAZE VALVE SEALS NENE DAIMHED BY A MINCH EXPLOSION WHICH OCCURRED BETHEEN THE MAL TRACTOR MEAD AND THE LOE MANIFOLD AT CUTOFF ON THE PREVIOUS TEST.	E DAMEED BY A MINOR EVICUA TEST.	EXPLOSION	¥10	3	D BETVEEN THE	
 SYSTEM DYTECT-CONCOLON. SUSTAINER TUBBINE, AND 6 LIS ENFLORED. SECONDARY EX	SYSTEM EFFECT-EM-COLON. LOE LEMINGE PAST THE MG MANTE MEALS BATMATED THE RESIDUAL MATERIAL IN THE SAGA, THE MUSTATION TURBINE, AND GE EMAINST DUCT AND MANIFOLD. WENT THE MG INTERS WERE FIRED, THE MESULTING WITHOUTAINGH GE LIMITOLD. RECOMBANT EXPLOSIONS MAY HAVE OCCUMED IN THE ERMINST DUCT AND MANIFOLD.	NLYE REALS HATMANTO I THE SHE SHITTERS NOT I EDWINST BUCT AND NO.	THE RESIDA	ML MATERIA	1 4 1	H THE SEG. THE HTDROCARBON SE	
 WONCLE EFFECT-LOSS OF V	WHAL INTERITY.						
CORRECTIVE ACTION-17 MAS	S RECOMMENDED THAT CAS CENERATOR PURCE PROCEDURES SE SEPTEMENT AND INPLEMENTED TO INSURE ADEA DURATION. DUE TO EXTENSIVE DAMMER, THE RESSILES SECTIONEED TO THE PACTORY FOR REPAIRS.	WASE PROCEDURES SE SE SE TO THE SECOND SECON	WEEKE TO T	INTLENE HE FACTO	8 5	TO INSURE ADEO R REPAIRS.	
 MOTULSTON-M1-A/B	28-7-678/28-212-84-01 SG LOK BLACE WLVE SEAL.	COTIN	15 960616	26/376	1 8	YES ROCKETÖYNE	•••
 FAILURE HODE-FAIL DURING WALVE. GEL MAS FORMED MIT	FAILURE MODE-FAIL DURING OPERATION. A FAILURE OF THE 366 BLADE VALWE LON SEALS ALLCHED LON TO LEAK PASY THE CLOSED ALYE. GEL WAS FORMED WITH RESIDUAL MYDROCARBON WHICH IGHITED WHEN THE IGHITERS NEWE FIRED.	BLADE VALVE LOS BEALS TED LANDS THE IGHITIDA	ALCOED I	\$ 4 5	ž	87 THE CLOSED	
 STSTEN EFFECT-EIPLOSION.	. HE SUSTAINER GAS EDIZBATOR EMPLODED.						
WAICLE EFFECT-PROMINE PROPULSION SHUTDOM.	MOPULATOR SHUTDOM.						
 CORRECTIVE ACTION-MAINDAN.	.						
PROPULSTON-NA1-A/B SUSTATNER	ENGSA/SA-E11-64-01 TURBO PURP ELECTRONIC CUTOFF NETNO PK	CAPTIVE NO	18 560617	9-2/8VC 1.11	5 3	YES HOCKETOYNE	•
 FAILURE MODE-PAIL DURING TOFF. THE BUSTAINER ENGIN	FAILURE MOE-FAIL DURING OPCRATION. THE BUSTAINGS PLAP ONDSSPEED/UNDERSPEED CUTOFF NETWORK ERRONEOUSLY INITIATED CU OPF. THE BUSTAINED ENGINE NAS IN A NORMAL THRUST RISE TRANSIENT. MAXIMUM RECORDED PLUP SPEED WAS 5,600 RPM.	ERSPEED/WGERSPEED CL JASIENT, MAXIMUN RECO	DED PURE	MR DROM	1000 9 . 60	T INITIATED CU	
SYSTEM EFFECT-OPERATION FF. WERNER OPERATION WAS	I STOPS PREDATURELY. THE EDROGEOUS CUTOFF SIGNAL RESULTED IN PREDATURE PROPULSION SYSTEM CUTO: 8 3.50 SECONDS.	CUTOFF BIGMAL RESULTI		TURE PRO	X	ON BYSTEM CUTO	
WONICLE EFFECT-PREDATURE PROPULSION CUTGFF.	: PROPULATOR CUTOFF.						
 CORRECTIVE ACTION-BURBER	CORRECTIVE ACTION-SUBSEQUENTLY, THE CUTOFF LIMIT WAS RAISED FROM 11,000 RPM TO 11,400 RPM.	ED FROM 11,000 RPM TO	11.400 RI	ż	-		
 Propul 81 000-1011-4/8 848 TAINER	28-7-079/82-211-84-81 TURBO-FURP, RMTCH	CAPTIVE	10 80001 7	22/37C 1.11	÷ ē		
 FAILURE MODE-PRESMITURE INC OPERATED TRIP.	OPERATIONS. PRESENTE EMBINE CUTOFF OCCURRED BUE TO SPURIOUS ACTIVATION OF THE BUSTAINER 1 URS	OCCURRED DUE TO BIVING	1008 ACTIV	M 7 1 CM OF	Ĕ	BUSTAINER TURS	

SENERAL DYNAMICA CONVAIR DIVIBION

18 JUN 1966

25 Jun 1966	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSONNE	SION SYSTEM-AIRBORN	¥				
275TEN 346-873TEN	TEST/REPORT MUSES FAILED COMPONENT MANE	DIF DATA BOUNCE PART NUMBER	VEHICLE SITE DATE DIF	317E 71ME 01F	PRI VENDOR NAME OTH VENDOR PART NO	ر -	
SYSTEM EFFECT-OPENATION STOPS PRENATURELY.	ITOPS PREMATURELY.					913210	
WAICLE EFFECT-PREMIUME	MOPULATON CUTOFF.						
CORRECTIVE ACTION-URINOLA	.4						
PROPULSION-MAI-A/B SUSTAINER	EP-1034/8E-ED9-64-01 TURBOPUMPELECTRONICCUTOFFNETNORK	CAPTI VE	16	9-2/8YC 1.17	YES ROCKETDYNE	2	
FAILURE MODE-FAIL DURING O	PERATION. THE SUSTAINER PLUP WAS IN A NORMAL THRUST RISE I	OVERRPEED/UNDERBPEED CUTOFF NETWORK ERRONEOUSLY INSTINATED PRANSEENS.	TOFF HETWO	RA CRROM	OUBLY INSTINTED CU		
SYSTEM EFFECT-OFERATION ST	SYSTEM EFFECT-OFFIATION STOPS PREMIURELY. THE EMONDOUS CUTOFF SIGML RESULTED IN PREMIURE PROFULSION SYSTEM CUTO F. Vernier offiation has 3.60 seconds.	OFF SIGNAL RESULTED	N MEN	TURE PRO	ULSION SYSTEM CUTO		
WENTELE EFFECT-PREDATURE	PROPULSION ENGINE CUTOFF.					- ·	
CORRECTIVE ACTION-SUBSERVE OCCURRED SINCE.	CORRECTIVE ACTION-SUBSEMENTLY, THE CUTOFF LIMIT WAS RAISED FROM 11,000RPM TO 11,400RPM. NO EXRONEOUS CUTOFFS MANE ECURRED SINCE.	PROM 11,000RPM TO 1	11.400APH.	NO EERO	EQUA CUTOPTA MAVE		
PROPULSI CH-M1-A/B	28-7-079/32-209-A4-01 14880 PusP 8A11CH	CAPTIVE	10 500613	3£/87C 1.17	7E8 NO	***************************************	
FAILURE MOSE-PREMATURE OF	TRATION. PREDMINE EMBINE CUTOFF OCCURRED DUE TO SPURIOUS ACTIVATION OF THE BUSTAINES TURS	CURRED DUE TO SPURI	IOUS ACTIV	A710H OF	THE BUSTAINES TURE		
SYSTEM EFFECT-OFCRATION STOPS PREMATURELY.	ITOPS PREMIURELY.						
WENTCLE EFFECT-PREMIUME	PROPULBION CUTOFF.						
CORRECTIVE ACTION-LINELNOIN	_						
PROPULSION-MAI-A/B BUBTAINER	F783070/F1-2CO-01-03 6118AL BLOCK	COMPOSITE-B FACT	36	11/ETR	YES ROCKETDYNE NO	52:58	
PAILURE MODE-OUT OF EIPPEC ME TAM BERVO LOOP MITH APP TRACED TO BLACK IN THE 61	FAILURE MODE-OUT OF EXPECTED TEST VALUE, SUSTAINER ENGINE MONEDENT MAD 8 CPS OSCILLATIONS WITH MIGH OMERSHOOTS IN T ME YAM SERVO LOOP WITH APPLICATION OF A STEP VOLTAGE TO THE YAM SERVO LOOP. THIS ALSO OCCURRED ON MISSILE 48 AND MAS TRACED TO SLACK IN THE SINEML BLOCK UNDER NO THRUST CONDITIONS. REF. FTA 4081.	MDENT MAD & CPS OI AM BERVO LOOP. THIE NE. REF. FTA 4081.	METELATION	S WITH HI	EN OVERSHOOTS IN THE SELLE AS AND WAS		
SYSTEM EFFECT-MOME.							
WHICH BYECT-HOM.							
CORECTIVE ACTION-HOME.							
						 	
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SCHERAL DYNAMICS CONVAIR BIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

PROPULATON-MA1-A/B BUSTATNER		PART NUBER	DATE DIF	TIME DIF OTH VENDOR PART NO		_
	EN-108e/TEST 14-301-A1 LUBE OIL TANK	CAPTIVE	\$40604	1-4/EDMA YES RDS NO 8. BEC.	7E 8	800
PAILURE MOE-FAILED TO OFFRAT R LUGE CAL MANIFOLD PRESSURE F TED NO DIFFICUATIES. CAUSE WAS STATEN EFFECT-MONE.	FAILURE NOCE-FAILED TO OPERATE AT PRESCRIBED TIME, CUTOFF WAS INITIATED MAMALLY WHOM GRAPHIC RECORDING OF SUSTAINE. LUBE OIL MESSURE FAILED TO COME UP TO REQUIRED OPERATING LEVEL, RESULTS OF LUBE OIL BLONDOM TEST INDICATED NO DIFFICULTIES, CAUSE WAS PRODABLE RESULT OF AN ANOMALY IN INSTRUCTION. SYSTEM EFFECT-NOWE.	MS INITIATED MAMMAL PERATING LEVEL. RES IN INSTRUCCHTATION		LAPPIC REC	GRAPHIC RECORDING OF BUSTAINE LUBE OIL BLOMDOM TEST INDICA	.
WONTOLE EFFECT-PREDATURE P	WONICLE EFFECT-PREMIURE PROPULSION SHUTDOM: PLANNED RUN DURATION WAS 10.0 SECONDS. ACTUAL WAS 0.42 RECONDS. Confective action-largoman.	HAATION WAS 10.9 SE	COMDS. AC.	TUAL TAS D	.42 BECONDS.	
PROPULSION-M1-A/B SUSTAINER	28-7-079/34-R09-01 TURBO PUMP-SHI TCH	CAPTINE	16 \$60430	8278YC 11.33	# Q	
FAILURE MODE-PREMATURE OPERATURE OPERATURE	PERATION. PREMATURE ENGINE CUTOFF OCCURRED DUE TO SPURIOUS ACTIVATION OF THE SUSTAINER TURS	CCURRED DUE TO SPUR	IOUS ACTI	ATION OF	THE SUSTAINER TUR	•
SYSTEM EFFECT-OFERATION STOPS	STOPS PREMIURELY.					
WHICLE EFFECT-PREMATURE PROPULATION CUTOFF.	FROMESION CUTOFF.					
CORRECTIVE ACTION-REPLACE OVERSPEED	E OVERSPEED UNIT.					
Propulsion—Mai—A/B Bustainer	28-7-078/28-203-A2-01 TURBO PUPP BATTON	CAPTIVE	18 9404£9	38/37C 11.87	YES ND	33
FAILURE HODE-PREDATURE O INE OMERSPEED TRIP.	FAILURE HODE-PREDATURE OPERATION. PRESATURE EMBINE CUTOPP OCCURRED DUE TO APURIOUS ACTIVATION OF THE SUSTAINER TURS HE OMERSPEED TRIP.	CCURRED DUE TO SPUR	IOUS ACTI	M110H Q	THE SUSTAINER TUR	
SYSTEM EFFECT-OPERATION STOPS	STOPS PREMATURELY.					
WHICLE EFFECY-PREMIURE PROPULSION CUTOFF.	: PROPULSION CUTOFF.					
CORRECTIVE ACTION-LIBERIORS.						
PROPULSION-MAS-A/B BUBTAINER	28-7-079/48-E01-A1-01 866 FUEL LINE SCREDA	CAPTIVE	19 5003E0	32 / 14C	VES ROCKETBYNE	
FAILURE MORE-OUT OF BATE BTAINER CAS CENERATOR PUE	FAILURE HORE-OUT OF SPECIFICATION. ASMORMAL SUSTAINER ENSINE OPERATION RESULTED FROM INABWERTENTLY PLUSSINGOF THE SU STAINERS OAS SENERATOR PUEL FIEED LINE SCREEN WITH BESICEANT.	OPERATION RESULTED	PROF 1864	WER TENTLY	PLUMBINGOTHE &	<u> </u>
STATES EPTECT-LOSS OF ST	STATEM EPPECT-LOSS OF STRUCTURAL SHITGARITY. THE SUSTAINER PUBBINE INLET BUET RUFTURED.	WASTE THET DUCT R	wram.			, =
WHICLE EFFECT-HOME. EMBINE CUTOFF BY THEM.	INE CUTOFF BY TINER.					
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GENERAL DYNAMICS CONVAIR DIVISION

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9961 MAC 61	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE	LSION SYSTEM-AIRBORI	w				ı
H31848 - 408	TEST/REPORT MANGER PAILED CONFORMI MANG	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	817E	E &	VENDOR NAME VENDOR PART NO	pri v 1 - 1 - 1 - 1 - 1
CORRECTIVE ACTION-UNKNOWN.	1						2111
MOPULSION-MI-A/B 2	ZN-7-545/14-204 EUSTATHER TUMBO PUMP	CAPTIVE	701005	1-4/EDM 606 1.62	20	YES ROCKETOYNE	::::
FAILURE MODE-FAIL DURING OF THE LOS FUNF SEAL BEATH DE DIT MAGR LOS LEARAGE.	FAILURE MODE-FAIL DURING OPERATICH. POST TEST MARDNARE INVESTIGATION INDICATED A DETOMATION OCCURRED IN THE AREA OF THE LOX FUNT SEAL DIAIN DUE TO CAUSE/S URKNOWN. RESULT OF DETOMATION MAS RUPTURE OF THE LOX FUNT VOLUTE AND SUBSESU NY MAGRILOX LEXARGE.	STIGNTION INDICATED ETONATION MAS RUPTU	A DETOWAT HE OF THE	TON OCCU		H THE AREA OF E AND BURBERU	
STATEN EFFECT-LOSS OF STRUC UTE, THE SUSTAINER AND VEHIC	STRUCTURAL INTEGRITY. AS A RESULT OF THE MAJOR LOK LEAKAGE THROUGH THE FRACTURED LOX FUNF WERHIER ENGINES FLANED OUT.	THE MAJOR LOK LEAKA	E THROUGH	THE FRAC	TURES	TON LINE NOT	
VOICLE EFFECT-PRENATURE PR	VEHICLE EFFECT-PRENATURE PROPULSION SHUTDOMN. POLLOIGNE SHUTDOMN THE ESHMUST GASES MINED WITH THE LEAKING LOH AND I MININED AN EXPLOSION UNION DESTROYED THE THRUST SECTION.	MOUNTHE ENAUST G	NAES MIXED	M 147 24	3	ING LOS AND I	
CORRECTIVE ACTION-RECOMEDIDATION INVESTIGATING COMMITTEE REPORT.	CORRECTIVE ACTION-RECOMEDIATIONS FOR CORRECTIVE ACTION ARE LISTED ON PAGE 4 AND 9 OF REPORT ZN-7-545 SUPPLEMENT TO INVESTIGATIVE COMMITTEE REPORT.	LISTED ON PACE 4 AI	\$ 0 0 E	POST 234-1	-545	SUPPLEMENT TO	
PROPULSION-MI-A/B SUSTAINER	ZH-7-945/14-203 BUSTAINER LOK REGULATOR DIAPMAGN	CAPTIVE	571227	1-4/DM	20	YES ROCKETOYNE.	98
FAILURE MODE-FAIL TO GPERL NEW LOST CALL	FAILURE MODE-FAIL TO GPETATE. THE SUSTAINER BUSINE BID NOT REACH BOOTSTRAP GPETATION DUE TO A RUPTURE IN THE BUSTAI MER LOX RECULATOR WHICH CAUSED A PARTIAL LOSS OF LOK REPULATOR REPERBINE PRESSURE. RESULATOR DIAPHRASH RUPTURED.	REACH BOOTSTRAP OPEI OR RETERBICE PRESSU	IATION DUE NE. REGULA	TO A RU	7 LEE	IN THE BUSTA! RUPTURED.	
SYSTEM EFFECT-OPERATION TO NAS 205 PSIG NATIONAL.	SYSTEM EFFECT-OPERATION TOO LOW. SUSTAINER CHANGER PRESSURE REACHED A INXIMAN OF SED PSIE, AND SEA CHANGER PRESSURE Has bes psie naximan.	READED A MXIMM	26 340 751	f. 20 %	3	LOCA PRESSURE	
WONCLE BFECT-MBMTURE	WONCLE EFFECT-PREMIURE PROPULSION CUTOFF. MINSTAGE LIMITER CUTOFF.	ER CUTOFF.					
CORNECTIVE ACTION-NEW, ACE LON REGLEATOR.	LOK REGLATOR.						
PROPULATON-NA1-A/B	ZB-7-067 PART E/16:13E LUBE OIL TAIR PRESSURE BAITON	CAPTIVE	\$703 20	1 -4 /COMM FD 5	ភូទ		7.03
FAILURE NODE-FAIL TO OPERA	ATE AT PRESCRIBED THE. THE LIME OIL PREMIURE BATTON BID NOT ACTUATE.	AL PRESSURE BATTON	116 NOT AC	74 TE.			
SYSTEM EFFECT-OPERATION S	STREET EFFECT-OPERATION STOPS PRESMINKELY. LIBE OIL CUTOPP MESULTED PROM THE BARTON MALS UNCTION.	MEDILITED FROM THE BI	ATON MAL	JEC 1198.			
MONTOLE COVECT-PRESENTARE AN	PROPULATOR CUTOPP.						
CONSCIING ACTION-REPLACE	est ton.						
							.
						PAST CORE	

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DIFFICULTIES REVIEW-PROPULATION SYSTEM-ATRECOME

	100800			13069					619613								
VENDOR HANG VENDOR PART NO		INTO THE TANK MCEDING AT 2.5	:316M.		VERNICE VEHT V	M AT 7:009 US						110-CTED TO TAILS			TART TANK TO WE LEATE VALUED. T	1 ce 1.04 to v	PA6C 5029
9 1 N	7 G	TONEE CAREE	, S	₽ ₽	Ĭ	ECTR			ار 8	ė		Ę		ž 8	80	*	
BITE PRI	12/ETR E.136	TONE THE TELE	A WILE	11 /ETR -000	ML TED IN	900 07			11.ET	ED FIRIN		X •		11./ETB -3	LINES PR	N 451471	
VEHICLE DATE OFF	98086 36	BUSTATIVER ON CONTITI	MACH AREA.	118 98080e	. P1005 NE	4 OT 300			10 6 561£10	HE SORDIE		a the cou		100 941210	ED IN LOC MA INDUFF	INCH. COM	•
DIF DATA SOURCE PART NUMBER	ř	MERNIER FUEL TANK INTO THRUST COME THENCE INTO THE TANK. PLANE UNICADING AND SUSTAINER TURBINE OVERSPEEDING AT 2.5 CONVAIR INVESTIGATION COMMITTEE. LY DETERMENED, FIRE AND EXPLOSION FOLLOWED.	: AND DANACED THE LA OT REQUIRE ACTION 8	соинтроже	ECTION AT UMBILICAL	LYES VOILD HOT OPEN	es minutes.		È	APPROX. 8 HRS. BEPT		OELAY IN PICKING V		ž	WATE BURGE IN RETAIN RESOURC OF 700 PDI	B BCC ON 1641 878 7	
TEST/REPCRT MUMBER FAILED COMPONENT NAME	FTASSEREVA/PE-501-00-09 VENT YENIER FUEL TANK	TRATION, HELIUM MAS WENTED FROM MET AUTOMATICALLY FOLLOWED FUEL, USIGNS FROM INVESTIGATION BY A WAS RELEASED BY CAUMES NOT FUE	VENICLE EFFECT-LOSS OF VENICLE INTEGRITY. DESTROYED VENICLE AND DAMMEDD THE LAUNCH AREA. Corrective action-launch lrea repair. Hissile Pailline did not reguine action since it was a unione design.	FTA4579/P1-E0E-00-11	FAILURE HODE-FAIL TO GPERATE AT PRESCRIBED TIME, A BAD CONNECTION AT UMBILICAL PLOOS MENULTD IN THE VERHIER VENT V LVES FAILING TO GPEN.	DOES NOT START. THE WEINIER WENT VALVES WENUE NOT CHEM BUE TO A SAG COMMECTION AT PLODS UMB	WENTOLE CTYECT-COUNTDOWN DELAYED. RECYCLE 25 MINUTES, MOLD 65 MINUTES.	ON WORLTCAL PLUE.	FTA413/P1-E0E-00-10 RELIEF VALVE, VIZNIER PNEUMTIC NI EN PNETBURE	ML. REPORTED DURING H-1 LAY CHECKS APPROX. 9 148. BEFORE SCHEDLED FIRING.		venicle eppect-courtiona delayed. At least part of a 4 hour delay in Picking up the count hay be attributed to this Prodlem	REPLACED.	FTA4437F1-ER-00-10 OECH VALWE, GRIFICE	DANTE AT PRESCRIBED TINE, HIGH PRESSURE SURGE IN RETAINED IN LOR LINES FROM START TANK TO VE Nyter pressurezing, hophal control pressure of 750 ps; van insufficient to operate valves. T Kedon test pi-edi-od-ig.	BOES MOT START. CUTOTF OCCURS AFTER B SEC ON 18M STS TIMER. CONCLUSION WAS NO LOG FLOW TO Y	
873TEH 848-873TEH	Menice	FAILURE MODE-FAIL DURING OF OUTLET TO THE SUSTAINER. CUTG SO SEC. INFO REPRESENTS CONC. SYSTEM EFFECT-EMPLOSION. LCG	WENICLE EFFECT-LOSS OF V	PROPULSION-IAI-AA	FAILURE MODE-FAIL TO OPE ALVES FAILING TO OPEN.	STSTEM EFFECT-OFERATION DOE!	VEHICLE EFFECT-COLATIONAL	CORRECTIVE ACTION-TIGHTEN UNGILLICAL PLUS.	Propusion Pri-A/B Vernier	FAILURE MODE-LEAK-EXTERNAL.	SYSTEM EFFECT-MOME.	VENICLE EFFECT-COURTBOIN	CORRECTIVE ACTION- VALVE REPLACED.	PROPULSION-MAI-A/B WEMJER	FAILURE HODE-PAIL TO OPERATE BAIGE PROPLESCON VALVES AFTER HE BAME DIFFICULTY OCCURREDON	STREET OFFICE -OFENATION DODI	

SCHERAL DYNAMICS CORVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

	119866		1	9 00 7 E				- 1	983677					30000					
VENDOR HANE VENDOR PART NO				YES ROCKETDYNE	K VENTING. THIS		E PATTERN.		YES ROCKETDYNE NO	CAE VIDED. THE					FOSITION AND BURNED THROUGH PLANE DEFLECTOR. ALSO ZERO BHIFTS AS PLANE CURTAIN HAD FAILED AND ERKES		MIFTED PROM THE	11 MAL POSITI	
260					74 74 VA		Ž			3 2 2 2				\$ £	7 g		3	LOCKE	
37.6 1.00 Delt				11/673	9		MONNIE		14/ETR	Ä				1-4/EDM RD3	MOUGH UNTARM		Š	וכשרד	
MONICLE BITE OF DAME				301010	NGS RUPTURE		TO CHRATIC		908046	FILM 0			ECKED.	900013	AS PLANE OF	fctons.		THE HECHANI	
DIF DATA BOURCE PART HUNGER			MLY MAS PORTED METH NO. OD BRILL.	FRE	ESSURIZING DIAPPLA ? CHANGERS.	MATICALLY.	CUTOFF CALLED BUE 1		PRE	CANIER DIGINE MED			DRACED AND LEAK OF	CAPTIVE	HALL POSITION AND	VERNIER PLANE DEPL	DATURELY BY AN COL	WENTER CHEINES M	
TEST/REPORT MARGEN FAILED COMPONENT MARE		PROPULATOR CUTOTF.	BOOTSTRAP CHECK	F745311/F1-201-00-B DIAPHRAGH	FAILURE MOSE-FAIL DURING OPERATION. THE VERMER FUEL TANK PRESSURIZING DIAPHRAKA RUFTURED BEFORE TANK VENTING. THIS CAUSED AN IMPROFEM MEXTURE RATIO, MAICH DANNAGED BOTH MARKER CAUSERS.	STATES EFFECT-EMBATIC OPERATION. WENTER ENGINES OPERATED EMATICALLY.	WENTELE EFFECT-COUNTDOM ABOUTED AND RESCHEDALED. CHEENVER CUTGFF CALLED BAS TO ERRATIC WERNIER PLANE PATTERN.	ED BLAMMACH AND VEHILER OWNERS.	FTARESE/F4-E01-00-00 THRUST CHAMBER-LOE DONE, BEAL	ML. A LOR LEAK MAS NOTED AT THE WE WEMLER DIGINE WEN FILMS OF THE FIRING NEME VIEWED.			CORRECTIVE ACTION-THE VE WEINIER ENGINE LOP BONE BEAL WAS REPLACED AND LEAK CHECKED.	EN-1026/TENT 14-307-84 MEHRICE PLANE DEPLECTORS	FAILURE HODE-FAILED DURING OPCRATION. YE DUGINE DRIPTED PROM MULL POSITION AND BURNED THROUGH PLANE DEPLECTOR. ALSO During the rum mumerous propulsion parameters emisited excessing zero smifts as plane curtain had failed and exces I've heat had extered thrust bection.	SYSTEM EFFECT-MIGH TENFERATURE ENVIRONMENT, BURN THROUGH OF WENNER PLANE BETLECTORS.	WENICLE EFFECT-REDIATURE PROPULSION BAVIDOMI. TERRIMETED PREDATURELY BY AN OBSERVER WICH VE EMBINE DRIFTED PRON THE MALL POSITION AND DAINED THEOLOUP PLANE BEPLECTOR.	COMPETING ACTION-VANIED PLANG DEPLECTORS MENE RESIDINES AND VERMEER ENGINES MENE MECHANICALLY LOCKED IN WALL POSITY H.	
878TEN 848-878TEN	CMCC11.	WHICLE EFFECT-PREMIURE PROPULATOR CUTOFF.	CORRECTIVE ACTION-SUSTAINER	PAOPULS (04-16.1-6.78	FAILURE MODE-FAIL DURING OF CAUSED AN IMPROPER MENTURE	STATES EFFECT-ENRATIC OF	WENTELE EFFECT-COUNTDONN	CORRECTIVE ACTION-HEPLACED	PROPULSION-MAI-A/B VEHAIER	FAILURE MODE-LEAR-EXTERNAL. A LEAR WAS AT THE LOP DOME SEAL.	SYSTEM EFFECT-MOME.	WONICLE EFFECT-HOME.	CORRECTIVE ACTION-THE VE	PROPULSION-MAI-A/B VEHIER	FAILURE MODE-FAILED DURING OURING THE DURING THE RUN MUNEROUS PROBLEM BINE MEAT HAD ENTERED THRUST	SYSTEM EFFECT-MIGH TEMPE	WONTELE EFFECT-PREDATURE	COMPETING ACTION-WEAMED	

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

818 - 87 2 TEN	PAILED COMPONENT NAME	PART HUMBER	DATE DIF	11 ME DIF	ž.	VENDOR PART NO	
PROPULSION-MAI-A-A	FTA4066/P3-201-00-4 RCULATOR-VERHIER LOP	PRF	46 300718	13/678	58	TES ROCKETÖTNE NO	32XC-
FAILURE NODE-OUT OF TOL	FAILURE MODE-OUT OF TOLERANCE. THE WERNIGR LOP REGULATOR MAS MOT AT THE CORRECT SETTING.	B NOT AT THE CONNEC	T 8CT1186				
STATEM EFFECT-EMATIC OF	STRICK EFFECT-CHRATIC OFENATION. THE VERNIER LOS RESULATOR WAS NOT BAPLYING THE COMMECT PRESSURE.	LAS NOT BUPPLYING TO	AC COMEC	r recesue	.:		
WENTELE EFFECT-COUNTDON	WENICLE EFFECT-COUNTDON DELATED. 15 MINUTE HOLD.						
CORRECTIVE ACTION-REGUL	CORRECTIVE ACTION-RESULATOR WAS RESET DURING HOLD.					:	
PROPULSION-MAI-A/B VEHILER	FTAAO17/F1-EGS-00-3 VDIT, VERNIER LOE START TAME, OVER BOARD, CAP	E	360 E 7	# 7 F	Ş g		1955.00
FAILURE MODE-FAIL TO OPENATE.	DIATE. WONT LINE WAS CAPPED.						
SYSTEM EFFECT-OPERATION DOES	I DOES HOT START, START TAKE WAS HOT FILLED. 1 YEAR PRESSURE BASTON DID HOT FICE UP AND CUTOF I STACE THER S SEC AFTER YEAR DEUIG FIRING.	FILLED. 1 VEHN PACE.	THE SHIP	DM 010 M	5	R UP AND CUTOF	-
WHALE EFFET-PREMIUM	WENTELE EFFECT-PREDATURE PROPULSION CUTOFF, COUNTDOM WAS CONTINUED AFTER 45 HIN HOLD AND 05 HIN RECYCLE LOSS.	ONTINUED AFTER 41 K	IN HOLD A	MIN SO O		af toss.	
CORRECTIVE ACTION-CAP REDIONED.	Docto.						
PROPULSION-M1-A/B	FTA 4001/F1-ERE-00-5 VEHIER FUEL START TANK REGULATION	Ł	85 80 82 80 82 80	11.CM	55	YES BOCKETOTHE	24.5160
FAILUME MODE-OUT OF EXPECTED TEST VA ABILIZED ABONE NORMAL AFTER BHUTDOMN.	ECTED 1EST VALUE. JUST BEFORE LEAGTION, THE REBULATOR OUTLET PRESSURE BEEAN TO CLIMB, AND ST TER SHUTDOM.	ON, THE REGULATOR O	UTLET PRE	THE BEF	2	CLIM, AM ST	
SYSTEM EFFECT-OFERATION TOO HIGH.	TOO HIEM.						
VENICLE EPTET-NOIC.							
CORRECTIVE ACTION-REGUL	CORRECTIVE ACTION-REGULATOR REPLACED AFTER 1881.						
PROPULSION-M1-A/B WORNIER	DE-1026/ TEST-14-309-AS VENICOR PLAC DEPLETORS	CAPTIVE	\$0 \$0 \$0	1-4/TDNA RD3	2 %		10011
FAILURE MODE-PAILED BUR OTH PLANE DEPLECTORS. NEI	FAILUME MODE-FAILED BURING CPEDATION. FAILUME OF WERHIER ENGINE TO MOLD MULL POBITION REBULTED IN BURN THROUGH OF B OTH PLANE BEPLECTORS. NEBBING AT AFT END OF THRUB! BÉCTION, BTATION 1296, WAS BLIBHTLY BURNED IN BUNDS 1, 11 AND IV.	SINE TO MOLD MALL PATATION 1256, MAS IN	0617100 M	COUNTED IN	1 4	In 11 AMD IV.	i i
SYSTEM EFFECT-MICH TEMPERATURE	cias une chylrodocht acoulted in burn through of Vernier plane beplectors.	PARCUSH OF WEINIER	PLAKE BE	NAC YOUS.			
CONECTIVE ACTION-90% VENHES	VEHIER DATIE PLAKE BEPLECTOR ASSIDELIES INDOVED.	LIEI REOTE.		į			
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CONVAIR DIVIBION

10 Jun 1960

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DIFFICUATIES REVIEW-PROPULSION SYSTEM-AIRBORNE

8781EH 848-8781EH	TEST/REPORT MAGER FAILED COMPONENT MINE	DIF DATA SOURCE PART MAGGR	WENICLE DATE DIF	817E 710E 91F	2 2 0 0 0	WENICLE SITE PRE WENDOR MANE DATE BET NO	٠
WENTER	FTA3044/FE-103-00-11 FUEL WAVE, FLANKE	Pleat	1.64 86058	16/618	£ 8	TES ROCKETOTHE	•
PAILURE MODE-FAIL TO OP	PRATE, A LEAR IN THE 19 PUEL LINE AT THE PLANKE ATTACH POINT TO 19 PROPELLANT VALVE.	AT THE PLANKE ATTACH	POINT TO	n moreu	MAI W	ור ע.	
ATAIN CPECT-OCPLETION OF PRIOR TO WEIGHT SHIPTION.	A OF LIGHTS SUPPLY. WE CHAINE MENTS ISMITTED DUE TO DEPLETION OF PUEL PROM THE PUEL START TANKS.	I I BALLTED DUE TO DEPLE	110% OF PL	ACL PROF	Ĭ	CL START TANK	
WHICH EFFECT-MENTURE VENIER BHUTDOM.	NE VERMEER BAUTECHA.						
CORRECTIVE ACTION-LARING		·			İ		
MOPULATON-MI-AA	FTASO44/PE-103-00-16 PLANCE	COUNTDOM	15 E	12.CH	Ş e		<u>\$</u>
FAILURE MODE-LEAK-EXITER	FAILUNE NODE-LEAR-EXTERNAL. LEAK IN PLANE FITTING TO YI ENGINE.	SKINE.					
SYSTEM EFFECT-DEPLETION MEINE TO IGNITE.	H OF LIGHTD SUPPLY. WENNEER START TANK PROPELLANT DEDETED WHICH CAUSE THE FAILURE OF THE MY E	TAME PROPELLANT DEPETE	3 8 4 8	344 38W	PATLUM	3 4 34 50 3	
COMMETTING ACTION ACCOUNTS	IR LEIK AT M. PLANKE.						
PROPLES CH-MS-A/B	FTAPELL/PN-103-00-19 THENGT CAMBER	COUNTDOM	15.4 960.601	14/ETR	å ē ₹	TES ROCKETBYNE NO	***
FAILURE MODE-FAIL TO OF	FAILURE MODE-FAIL TO OPERATE. WERNIER NO. & ENGINE EUPLORED AT IGNITION	ED AT ICALTICA					
SYSTEM EFFECT-EIPLOSION	STSTEM EFFECT-EMPLOSION. EMPLOSION OCCUPRED IN WENNIER HD & ENGINE AT IGNITION. THE WENNIER LOG BONE AND INJECTOR P ATE WENE BLOAM OFF AND POUND 100 PEET PHON THE WENICLE.	P ENGINE AT 1641T104	. THE WESE	MER COR	M M	INJECTOR P	
WELCLE EFFECT-COLAMBOLE DR PROBLEM AND CUTOFF WAS	WENCLE EFFECT-COUNTDOOR ABORTED AND RESISPENCED. BOSSTER EMBILIEM WYN HOT EFFECTED AS A NEBULT OF THE WENLE IR PROBLEM AN: CUTOFF WAS KEIGRATED BY THE BOOSTER L'AITTION DELAY THÊR.	M DELAY TINDE.	NOT EFFECT	A 88 A	MCDUL T	OF THE WIRHS	
CORRECTIVE ACTION-VERME	CORRECTIVE ACTION-WENTER ENGINE NO 2 AND FAIRING ABBOOKT NEW REPLACED.	F NEME REPLACED.					
PROPULS (ON-MA)-A/B WENNIER	EC-7-094/PE-101-00-11 OUCTINE-01610	F.1941	11.A 940220	18.6m	ž e		·
FAILURE HODE-FAIL DURING HOTE ON THE BETHERD THE WITHOUTH ALL WAS AN	ME OPTRATION. WE DIGING BHUTDOM PROMITURELY AT 108-4 BETOIDS. S.S RETOIDS AFTER THE DIGINES. PRESE STOP. POSSIBLE CAURE OF BHUTDOM IS DUE TO LOSS OF THE WENGER LON PEED LINE BETHEEN UP THE THRUST CHARGES.	CHATURELY AT 108.4 PE TROOM 16 BME TO LOSS	COEDS. S.(HEER LOK	2 P	WENTER LOT PEED LINE BETHEEN	
erette gretter-oftsation vigoal.	I STOPS PRODUTURELY. YE CHANGER PRESSURE GATA LIGICATED A STEADY STATE SO PSI AFTER ENSINE SH	SOURE DATA INDICATED	A STEADY I	00 JI 141	ž	TC C10031K 21	

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9991 MOT 61	DIFFICIATIES REVIEW-PROPULATION AVAILM-AINBORNE	SION SYSTEM-AINBON	₩		
8781EH 848-8781EH	TEST/REPORT MANGER FAILED COMPONENT MANG	DIP DATA BOURCE PART HUNGER	WENICLE BITE PRI BATE BIF TIME BIF OTH	PRI VENDOR NAME OTH VENDOR PART NO	<u> </u>
WHICLE EFFECT-PREDATURE	WENICLE EFFECT-PREDATURE WERHIER ENGINE BRUTDOMN. WENICLE WAS ALREADY UNSTABLE BUE TO PLICAT CONTROL PAILURE.	IS ALPEADY UNITABLE	DUE TO PLICHT CON	HOL PAILURE.	*******
CORNECTIVE ACTION-HOME.					
Frotasion-mi-a/B Wenigh	Deserta-107-De-14 VERNIER FUEL TAKE PRESENTIZING SCL. DIOLD	CAPTI WE	14A 1A/Diena 900218 D3 124	1A/EDAMA YES ROCKETDYNE DS RD 1284	•
FAILURE MODE-FAIL TO GRES TANK DID NOT BECIN TO RES ESSURIZING SQLENGID.	PEDATE AT PRESCRIBED TING. VERNIER LOH TAKK REPRESSURIZED AT 112 BÉCOMDS BUT THE VERNIER PUEL Repressurize until 124 secombs. This indicated sluggism openation of the Vernier Puel Take Pr	I TAIR REPRESSURITE	AT 11E BECOIDS &	IT THE VERHICA FUEL SMILTA FUEL TAHE FR	gg
SYSTEM EFFECT-OPERATION S	SYSTEM EFFECT-OPERATION STOPS PREDMIURELY. PLANNED & SECONDS OF SOLO VERMIER ENGINE OPERATION WAS NOT ACHIEVED.	OF BOLO VERMER D	SEINE OPERATION OR	HOT ACHIEVED.	
WONCLE EFFECT-PEDATURE PROPULSION CUTOFF, CUT TAME FALLED TO MEPRESSARIZE AT THE PROPER TIME.	WONTILE EFFECT-PREDATURE PROPULSION CUTOFF, CUTOFF HAS INSTINSTED MANALLY AT 124.5 SECONDS DECAUSE THE VERHIER FUEL Tank Failed to repressurize at the proper time.	IATED MANGALLY AT 15	14.5 BECOMOS BECAU	E THE WEAKIER I	y
CORRECTIVE ACTION-BOLDIOS	DIDED WAS REPLACED.				
PROPULSION-M1-4/B VENIER	F742542/F4-101-00-13 Winder Crific.	PRF	13A 14/ETR 300131	Ž Č	
FAILAGE MODE-OUT OF TREE	FAILLEE HODE-OUT OF TRESLANCE. DE CRIFICIAL LUÍD OU DE MONITO DULINÉS POR THIS MONICE CAURDS MONITOR E 23 PERCENT LOA.	MIER COLLIES FOR T	US SOUCE CASE	Spelice near 10	2
SYSTEM EFFECT-OPENATION	system effect-operation too low. Menuer engine thrust has approximately the poinds werm 1000 poinds has empered.	SPROKINATELY 760 P.	XADS WEN 1000 PO	ADS 1415 EXPECT	
WHELE EFECT-HOME.					
CORRECTIVE ACTION-REGALIFI	CORRECTIVE ACTION-REGALIFICING WAS CONSIDERED. MOMENTAL THE FINAL DECIBION WAS TO MAKE NO CORRECTIONS.	THAL DECIDION MAS	TO WAKE NO CORRECT	je S	
Propusion-Mi-A/B	DWD8/14-105-44-14 LOR GRIFICE	CAPTIVE	14A 1A/DWAR YES \$60130 B\$ YES	Şē	\$ 3
FAILURE MODE-OUT OF EXPEC LOR FLOW ORIFICE WAS 1885 ET A LOK LEAK WAS PRESENT	FAILURE MODE-OUT OF EXPECTED TEST VALUE, DATA INDICATED LOW VS CHANGES PRESSURE, COALD BE ATTRIBUTED TO, 41) THE VS LOR FLOW CRIFICE WAS INSTALLED WITH THE BEVILED EDGE OF THE CRIPACE FACING DOMNSTREAM RATHER THAN UPSTREAM AND/OR 1 E) A LOK LEAK WAS PRESENT AT THE VS LOK INLET INDIRUNENTATION TEE.	Y, CAMBON PRESAUN GRIFACE FACTING DOA 1 TEE.	E. COLLD BE ATTRIB HTPEAN RATHER THA	ИШ ТО, Ц) ТМ 1 UPS ТЯКАН AND/Y	g -
SYSTEM CPPECT-OPERATION 1	STSTEM CPPECT-OPERATION TOO LOM. THE WENNIER (VS.) CHANGER PRESSURE WAS READING BES PSIG INSTEAD OF THE EXPECTED SAG PSIG.	ESSUE IN SEADING	BES PSIG INCTEAD	F THE EXPECTED	97
WHELE DITET-HOME.					
CORRECTIVE ACTION-MENDAN.	•				
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	VENDOR PARE NO		LOK LEAK AT TH	. 1116.				PRESSURIZING SOLE FERNIER FUEL TAIR			11ct.		N THE CLOSED PO					Ke due to Inco			PASE DOTA
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	VENICLE SITE DATE BIF TIME BIF	1A/EDIMA De		E EMPECTO			14/EDMR 03 E.E	FUEL TANK ENILY THE V	TAME YOU		6 CHARACT	14/EDMAR 03	VALVE FINO				1A/EDIAR VES	EUTCTE			
Ā	VENICLE DATE BIF	1 4 A 3 8 0 1 3 O	OMA DE AT	PEAD OF THE			144 540176	AC YCRNEER MDS. APPAR MAC.	MIER PUEL		R OPERATIN	14.4 9 6 01.51	O RELIEF				14.4 \$601£1	BELOW THE			
PULBION BYSTEM-AIRDO	DIP DATA SOURCE PART MUNDER	CAPTIVE	CANAGE PRESSURE. CO	READING RES POTO 1981			CAPTIVE	PERS INDICATE THAT TO THE YEAR UNTIL 21 SECON TOW TO THE VEHILER TO	MAS LOW UNTIL THE WE		MANE INDICATED PROPE	CAPTIVE	INIER LOX TAIK YENT AI				CAPTIVE	INET PRESSUES VERE			
DIFFICULTIES REVIEW-FROPULSION SYSTEM-AIRDORNE	TEST/REPORT MUSER FAILED COMPOSENT IN-Z	EMEDO/14-103-44-14 LOR INSTRUCENTATION INLET TEE	PECTED WALVE. DATA INDICATED LOW VI CHANGER PRESSURE. CONLD BE ATTRIBUTED TO A LOM LEAR AT TH	I TOO LOM. YE CHAIRETH PRESSURE HAS READING BES PSIG INSTEAD OF THE EUPECTED SAD PSIG.		į	EMBOD/14-104-A3-14 FUEL FILL AND CHECK VALVE	FAILURE MOSE-FAIL TO CHERATE AT PRESCRIBED TIME. EA RECCROERS INDICATE THAT THE YERNIER FUEL TANK PRESSURIZING SOLI MOID DE-ACTIVATED AT E.E SECONDS, MOSEWEN, THE TAKE DID NOT YENT UNTIL ES SECONDS. APPARENTLY THE YERNIER FUEL TANK FILL AND CHECK VALWE REDAINED OPEN, ALLOWING A HIGH PUEL PLOW TO THE VEHNIER TANK.	SYSTEM EFFECT-OPERATION TOO LOW. THE WEINIER PERFORMANCE WAS LOW UNTIL THE WEINIER FUEL TAIK WENTED.		CORRECTIVE ACTION-LINEMBAN. POST-TEST EXAMINATION OF THE VALVE INDICATED PROPER OPERATING CHARACTERISTICE.	DB00/14-103-42-14 WPHICK RELIG VALW	FAILURE HODE-FAILED DURING CHERATICH. THE COMBINATION MENNIER LOK TAME WENT AND RELIEF VALVE FROZE IN THE CLOAED PO LITICH.				DMOD/14-163-42-14 WENGER LOK ONIFICE	FAILUME MODE-OUT OF EXPECTED TEST VALUE. THE WENNIGH LOM IMLET PRESSUMES WENE BELOW THE EXPECTED VALUES DUE TO INCO MEECT ONIFICE SIZE. MANNEED ONIFICE WAS IMPTALLED.	700 LAK.		
Tes une si	8787EN 808-8787EN	PROPULATON-MI-A/B VERNIER	FAILURE MODE-OUT OF EXPECTES E VI LOX IMLET INSTRUMENTATION	SYSTEM EFFECT-OFFIATION TOO LON.	Wolcie CPFECT-HOLE.	CORPECTIVE ACTION-URINDAN.	PROPULSTON-MAI -A/B VEHNIER	FAILURE MODE-FAIL TO CHERATE MOID DE-ACTIVATED AT E.E SECON FILL AND CHECK VALVE REDAINED	SYSTEM EFFECT-OPERATION	VEHICLE EFFECT-NOME.	CORRECTIVE ACTION-UNKIN	PROPULSION-MAI-A/B VERNIER	FAILURE MODE-FAILED DUA	BYBTEN EFFECT-HOME.	WATCHE STECT-HOSE.	CORRECTIVE ACTION-UNKNOWN.	PROPULSION-1413-4/18 NEWLER	FAILURE HODE-OUT OF EXPECTED MEET OF EXPECTED OF	STATES EFFECT-SPERATION TOB L	WELLE EFFET-HOME.	

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DIPPICATIES REVIEW-PROPULSION STREET-AIRBORNE

2.7.5.TEM 84.6 - 57.8.TEM	PAILED COMPORENT MANE	OIF DATA BOUNCE PART NUMBER	WENTCLE DATE DIF		ž š	BITE PIE PENDOR NAME TIME DIF OTH VENDOR PART NO	
CORRECTIVE ACTION-THE WENLES	ERMIER LON PRESSURE LINES MENE RE-CRIFICED PRIOR TO THE NEXT TEST.	RIFICED PRIOR TO THE	MENT TES	نے ا	1	:	***************************************
PROPULSION-MI-A/B WENLER	EN-778/8-1, 104-43-09 W PRESAURE BATCH	CAPTIVE	94 971204	8-1/8YC 0	ğ 8	YES ROCACTOVAE NO	3
FAILURE WOE-FAIL TO OPERATE CLOSE WEST VE CALINEER PRESSURE	CRATE AT PREDCRIBED TIME. TEST TERNIMATED BY A DEPECTIVE VE ESSURE REACHED PRESSURE BRITCH ACTIVATION VALUE OF 800 PLUS	IMM TED BY A DEPTECTIVE VATION VALUE OF 2000	1	PRESSURE BATTON M OR MINUS 10 PSIG.	3 . 3 =	PRESSURE SWITCH WHICH PAILED TO CR MINUS 10 PBIG.	
SYSTEM EFFECT-OFFIATION STOP	STOPS PRDM.TURELY.						
CERTAINE ACTION-REPLACE 3NG	THE CITY ACTION-NEDLACE SAFTCH.						
Propalator-Hat-A/B Wirhige	DI-TTI / 131 - 102 - 14-09 WE PLANCE CHECK VALVE	CAPTIVE	94 5711EN	9-1/84C	ř š		0
FAILURE MOCE-LEAK. VE PURCE ORECK EAKAT THE PURCE MANIFOLD, BTICKY, P	FAILURE MODE-LEAK. WE PURCE CHECK VALVE POUND STUCK IN OPEN POSITICM HHEN A MOLD MAS CALLED TO INVESTIGE EARAT THE PURCE MANIFOLD. STICKT, MON-IMPACT SENSITIVE BUBSTANCE EISCOMENED AS MOLDING CHECK VALVE OPEN.	N POSITICH HHEN A HO TANCE BISCOMEMED AS (LO LEAS CA	LLED 70 J	MAKES 71	TO IMMERISCATE A FUEL L. VALVE OPEN.	
STSTEM EFFECT-POSSIBLE CONTANTIANTION OF COSTON IN VEHIER EMEINE NOLLD RESULT.	F LOK PORTION OF	WINNISH DIGINE WITH FUEL, AT RECORD ATTEMPT TO LAUNCH, AN EX	L. as 960	GAS ATTE	5	LAIRCH, AN EX	
WHICLE EFFETT-POSSIBLE FIRE	FIRE AND LOSS OF MISSILE.						
CORNECTIVE ACTION-MEPLACE CHECK VALVE.	CE CHECK WALVE.						
PROPULSION-MI-A/B VERNIER	EN-7931-1-112-189-09 VERNIER FUEL BTART TANK PRESSURE, CRIFICE	C.P. I W	5A 8710 £4	EDMANDS	£ 8	YES ROCKETOTION	
FAILURE MODE-LEAK-EXTERNAL-W NK TO LEAK.	EMICH PULL	START TANK CRIPICE INSTALLATION WAS LOOSE CAUSING THE VERNIES PUEL START TA	DOK CAUBI	* At *	5	PUEL START TA	
STOTEN EFFECT-NOIC. STO	STREET CPFECT-NOWE. SYSTEM WAS NOT IN CPERATION.						
WENTCLE EPPECT-COUNTDOM DELL	H DELATED.					٠	
CORNECTIVE ACTION-THE CONNECTION WAS TIGHTEN.	OMECTION WAS TIGHTEN.						
FROPILE SOF PLAS - A/B WERHIER	D-006/14, 111-00-02 VEHICE COUNT	CAPTIVE	E4 87100	14/50444		VES MOCRETOVNE	
PATEURE MODE-STRUCTURAL-MOST	-POST 1887 IMPRECTION REVEALED ERROSION WITHIN THE WENTER NO. 8 EMBINE THROAT.	NOW THE PARTY MON	9 5	CINTING 1	MOAT		
erettu epper-mone.							
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

N.ST.ST.	TEST/REPORT MUNGER	DIF DATA BOURCE	VEHICLE	110	18	MAN NENDON NAME	_
M31878-808	FAILED CONTORENT NAME	PART MUDIER	DANE DIF TIME DIF	118 914	MIO.	DOM PART NO	
WHICLE EFFECT-NOW.							
CORRECTIVE ACTION-VERNICE EMBINE WAS REPLACED.	EMPINE WAS REPLACED.						
Propusion-m1-a/B Vernier	FTAITTE/F4-101-00-04 VALVE-FILL AND CHECK) Jife	4.4 \$703 20	14/678	4E8		
ATLURE MODE-FAIL BURING	FAILURE MODE-FAIL DURING OPERATION. FUEL START TANK FILL AND CHECK VALVE BTUCK.	ND CHECK VALVE BTUE	;				
SYSTEM EFFECT-OPERATION STOP	ITOPS PREMIURLY.						
DAICLE EFFECT-COUNTDOWN	VEHICLE EFFECT-COUNTDOWN DELAYED. A HOLD MAS EXTENDED 154 MINUTES.	HINUTES.					
ORRECTIVE ACTION-REPLACE	CORRECTIVE ACTION-REPLACED FUEL START TANK FILL AND CHECK I	VALYE.					
PROPULSION-W1-A/B WEAKIER	68-7-067 PART E-1E1 VERNIER EMESSIAE BAITON	CAPTIVE	970437	1-4/EDIM 708	YES O	YES ROCKETDYNE	•40•4
FAILURE MODE-FAIL TO OPCIATE.	IATE. VERHIER ENGINE PRESSURE SHITCHES WERE FOUND HOISTURE CONTANTHATED.	DIES NERE FOUND HOIL	TURE CONTA	MINATED.			·
TSTEN EFFECT-INPROPER DI G START STEMAL FROM NEAC	SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-NOISTURE COMAMINATED VERI ING START SIGNAL FROM REACHING THE BOOSTER ENGINE START CIRCUITRY.	CONTAMINATED WENLIGH ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDET START CIRCUITRY.	PESSURE SU	ATORES #	GT 20	NT PROMIBIT	
WONDE EFFECT-PREDATURE	VCHICLE EFFECT-PREDATURE PROPULSION BHUTDOAN-THE TEST WAS PREDATURELY TERHINATED LANDI IGNITION STACE WAS NOT ACHIEV D.	MENATURELY TERMINA	70 W-01 16	MITTON 8	JACE WE	S NOT ACHIEV	
ORRECTIVE ACTION-BALTON	CORRECTIVE ACTION-BALTON POTTING MAS ACCOMPLISHED.						 -
Propulsion-141-A/B Vernier	28-7-067 PART 2/14,127 VZ. THRUBT CHANGER LON INJECTOR	CAPTIVE	9704£4	1-4/DM	S C	YES ROCHETDYNE	94 06 4
FAILURE MODE-ERRATIC OPER ED SHUTDOMN.	FAILURE MODE-ERRATIC OPERATION. VE CHANDER HAD LON DOME AND INVECTOR BURNED ANAY, THEREFORE, ERRATIC OPERATION CAUD D. SHUTDOMN.	D INJECTOR BURNED AN	MV. THEREF	OPE. CM/	71C ON	GATION CAUS	
SYSTEM EFFECT-ERRATIC OFFIATI	AATION.						
WAICLE EFFECT-PREMATURE WERNIER ENGINE CUTOFF.	WEANIER ENGINE CUTOFF.						-
CORRECTIVE ACTION-REPLACE VE	WENLER CHEINE.					!	
PROPULBION-M1-A/B	VERHIER ENGINE PRESOURE BATTON	CAPTIVE	870423	1-4/EDM RD 8	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TER ROCKETDINE NO	•
FASTLINE MODE-FAST. TO OPERATE.	ATE. WERNIER EMBINE PRESSURE BAITCHES MERE FOUND HOISTURE CONTANIMATED.	HES WEST FOUND HOLD	TURE CONTA	MI 86 100.		·	·
						PASE 0036	

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PROPER DISCRETE BINALS-HOLDSTURE CONTANIANTED VERNINGE WASHE "MESSAGE BANTOCES BANGETO OUT PROMISE PROPERTIES." PROPERTIES. SHELDSTURE CONTANIANT CIRCUITAT. REPAYENTEL SATICH FORTISE. 28-7-087 PART E-183 CAPTURE CAPTURE CAPTURE CAPTURE CAPTURE CAPTURE STOADD 1-4/EDWN TES ROCKETOTHE CAPTURE STOADD 1-4/EDWN TES ROCKETOTHE CAPTURE STOADD 1-4/EDWN TES ROCKETOTHE CAPTURE CAPTURE STOADD 1-4/EDWN TES ROCKETOTHE CAPTURE STOADD 1-4/EDWN TES ROCKETOTHE THOSE RECOLUTES DESINE STATE CHICATOR WASHIGH DWINE PRESSURE BANTOCES SHORTED OUT PROVISITY FROM RECOLUTES THE CHICATOR TEST WAS PREDATURED. TERMINATED UND 1-4/EDWN TES ROCKETOTHE SA-7-087 PART E-183 SA-7-087 PART E-183 CAPTURE PROCESSURE SALES SALES SALES SALES SALES SALED OUT PROVISITY FROM RECOLUTES TO SALES THE SALES SALES SALES SALES SALED OUT PROVISITY FROM RECOLUTES TO SALES THE SALES SALES SALES SALES SALES SALED OUT PROVISITY FROM RECOLUTES TO SALES THE SALES S	#31276 #316-806	TESTAREPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART WUNDER	VENICLE DATE DIF	BITE DIF OF	VENDOR HANE	
RECENTUL SATION FOLIAN. 22-1-007 ART E-185 WERNICH DESIGN PRESSURE SATIONS AND FOUND MOISTURE CONTAMINATED L TO CPERATE. WENNER DESIGN PRESSURE SATIONS WERE FOUND MOISTURE CONTAMINATED PROPER DISCRETE STEAMS-MOISTURE CONTAMINATED WERNIGH PRESSURE BATTONS AND TOTAL TOTAL TOTAL STEAMS AND TOTAL SATIONS AND TOTAL STEAMS AND TO		CRETE SIGNALS-HOISTURE CONTANTNATI	ID VERNIER CHEINE .	RESOURE SM	TCHES SHOR	TED OUT PROHIBIT	0606
WENNIGH ENGINE PRESSURE BATTON CAPITY 1704ED MOISTURE CONTAMINATED NO PROCEDURE NECESSARE WENGER ENGINE PRESSURE BATTONS NO FORESTE. VENNIGH ENGINE PRESSURE BATTONS NECESSARE BATTONS NO PROFISET PROM MOISTURE CONTAMINATED WENT CIRCUITY. PROPER DISCRETE SEGMELS-MOISTURE CONTAMINATED WENT FROM MOISTURE CONTAMINATED WANTED WANTED WANTED BATTONS NECESSARE BATTONS NECESSARE BATTONS NECESSARE BATTONS NECESSARE BATTONS NECESSARE BATTONS NECESSARE PART E-125 AND MOISTURE CONTAMINATED WENT FROM MELANIA PROPER DISCRETE SIGNALS-MOISTURE CONTAMINATED WENT CIRCUITY. BB-17-047 PART E-125 CAPITY CIRCUITY. CTO OFFINE TO SECRETE SIGNALS-MOISTURED. TERMINATED MOISTURE CONTAMINATED. FROM MELANIA PROSSURE BATTONS NECESSARE BATTONS NECESSARE SHORTED OUT PROPISITY FROM MELANIA PROSSURE BATTONS NECESSARE BATTONS	CORRECTIVE ACTION-EVENTUAL	SATCH POTTING.	DATURELT TERRITARIE	D MARK MARK		MOT ACRIENTES.	
THE OPPERATE, WENNIER ENGINE PRESSURE SMITCHES MERE FOUND MOSSINGE CONTAMINATED. PROCESS DISCRETE STEMALS-HOISTURE CONTAMINATED VERNIER PRESSURE SMITCHES SHORTED OUT PROVISIT FROM RELOCKING THE SOCIETY ENGINE STATE CIRCULTRY. PROCESS DISCRETE STEMALS-HOISTURE CONTAMINATED WEN IGNITION STATE WAS NOT ACHIEVED WENTCHES WERE TEST WAS PREFATURE. TERMINATED WEN IGNITION STATE WAS NOTATED. SAN-T-OST PART E-1253 L. TO OPEDATE. WENNIER ENGINE PRESSURE SMITCHS WERE TOWN MOISTURE CONTAMINATED. L. TO OPEDATE. WENNIER ENGINE PRESSURE ENTITIES TOWN MOISTURE CONTAMINATED. PROPER DISCRETE STEMALS-HOISTURE CONTAMINATED WENT FROM RECOURTE TO STATE WAS NOT ACHIEVED. THOM REACHING WAS ACCORDINATED. ZB-7-OST PART E-120 WEARIER ENGINE PRESSURE BATTON CAPTIVE STEER FOLND MOISTURE CONTAMINATED. TO OPEDATE. WEARIER ENGINE PRESSURE BATTON ENGINE FRESHURE SMITCHS SHORTED OUT PROVIDED THOM REACHING THE STEMALS-HOISTURE SMITCH STATE STEMALS-HOISTURE CONTAMINATED. TO OPEDATE. WEARIER ENGINE PRESSURE BATTONE MERE FOLND MOISTURE CONTAMINATED. TO OPEDATE. WEARIER ENGINE PRESSURE BATTONE STEMATED WENT PRESSURE BATTONE TREATMENT PROVIDED TO THOM STATE WE MONIBURE. THOM REACHING THE BASINE ENGINE STATE CREATMENT TERMINATED WENT MAINSTANG WAS NOT ACHIEVED. FROM REACHING THE ACCOURTE THAT THE TERMINATED WENT MAINSTANG WAS NOT ACHIEVED. FROM REACHING THE ACCOURTE WEST TREATMENT TERMINATED WENT MAINSTANG WAS NOT ACHIEVED. FROM REACHING THE ACCOURTE WEST TO PREMIURELY TERMINATED WENT MAINSTANG WAS NOT ACHIEVED.		19-7-067 PART E-125 MENIEN ENGINE PRESSURE BATTCH	CAPTI VE	1	1-4/EDM TE	B ROCKETDYNE	•
PROFER DISCRETE SIGNALS-NOISTURE CONTANIANTED VERNIER PRESSURE SATICHES SHORTED OUT PROVISIT FROM RELACHING THE SIGNAL CONTANIANTED WERE STATISHED FOR THE STATISH STATISHED FOR THE STATISHES STATISHES STATISHES STATISHES STATISHES SATISHES SATISH		ITE. VENNIER ENGINE PRESSURE SWITCH	ES VERE FOUND HOLS	TURE CONTAI	fix 10.		
REPAITURE PROPULATION BHUTDOME-THE TEST WAS PREDATURELY TERNIMINED M-EN IGNITION STAGE MAS MOT ACHIEV BE-T-067 PART E-123 CAPTIVE STOATS STOATS 1-4/EDW YES ROCKETOTHE VERNIER EXCLINE PRESSURE SATTOR L TO OPERATE. VERNIER EXCLINE PRESSURE SATTORS WERE TOWN HOLISTURE CONTAMINATED. PROPER DISCRETE STOWALS-HOISTURE CONTAMINATED YEARIER ENGINE PRESSURE SATTORS BHORTED OUT PROHISTT FROM RECOUNTS TO STORE THE BOOKSTER ENGINE STATOR STORE THE MAS ACCOMPLISHED. AN-SATTOR POTTING WAS ACCOMPLISHED. L TO OPERATE. VERNIER EMGINE PRESSURE SATTORS WERE POUND HOISTURE CONTAMINATED. L TO OPERATE. WERNIER EMGINE PRESSURE SATTORS WERE POUND HOISTURE CONTAMINATED. REPAIRER PROPULSION CUTOPP-THE TEST WAS PREDATURELY TERMINATED WHEN MAINSTANCE WAS HOT PROVISITY PROMISETY THE MAINSTANCE WAS HOT ACKNIEVED. PROPER DISCRETE SIGNALS-HOISTURE CONTAMINATED WHEN MAINSTANCE WAS HOT ACKNIEVED. PROPER DISCRETE SIGNALS-HOISTURE CONTAMINATED. PROPER DISCRETE SIGNALS-HOISTURE CONTAMINATED WHEN MAINSTANCE WAS HOT ACKNIEVED. PROPER PROPULSION CUTOPP-THE TEST WAS PREDATURELY TERMINATED WHEN MAINSTANCE WAS HOT ACKNIEVED. PROPER PROTISM WAS ACCOMPLISHED.	SYSTEM CFFECT-INFROMER DIS- ING START SIGNAL FROM MEACH	ICRETE SIGNALS-HOISTURE CONTANTHATI	ID VERHIER ENGINE PUITAY.	RESSURE BW	17CHES 3HOR	TED OUT PROHIBIT	
WENNIER EMEINE WAS ACCOMPLISHED. 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITON 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITON 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITONS WENE FOUND HOUSINGE CONTAMINATED. 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITONS WENE FOUND HOUSINGE CONTAMINATED. 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITONS WENEVALLE FROM EMENTED WHO IGHITON STACE WAS NOT ACHIEV HE SAITON PROPERTY. 22-7-087 PART D-120 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITONS METER FOUND HOISYURE CONTAMINATED. 23-7-087 PART D-120 1 TO OPERATE. VERNIER EMEINE PRESSURE SAITONS METER FOUND HOISYURE CONTAMINATED. PROPER DISCRETE SIGNAL-PROISTURE CONTAMINATED VERNIER EMEINE PRESSURE SAITONS MEDICALISM. PROPER DISCRETE SIGNAL-PROISTURE CONTAMINATED VERNIER FRESSURE SHITCHES SHORTED OUT PROMISITY FROM RELOCKED ON A ACCOUNT. PRO SECULTAR. PROPER PROPERSION EUTOFF-PRE TEST WAS PREDATURELY TERMINATED WHEN WAINSTAKE WAS NOT ACHIEVED. PROPER PROPERSIONS WAS ACCOUNT. BY THE TEST WAS PREDATURELY TERMINATED WHEN WAINSTAKE WAS NOT ACHIEVED.	HICL OFFECT-PREMI	MOPULATOR BAUTDOIN-THE TEAT IMA A	EEMTURELY TERNIMA	31 ADM 88	41710W 87A6	E MAS NOT ACHIEV	
VERNIER ENGINE PRESSURE SALTCH VERNIER ENGINE PRESSURE SALTCH VERNIER ENGINE PRESSURE SALTCH L TO OPERATE. VERNIER ENGINE PRESSURE SALTCHES WERE FOUND MODITURE CONTAMINATED. PROPER DISCRETE SIGNALS-MOISTURE CONTAMINATED VERHIER ENGINE PRESSURE SALTCHES SHORTED OUT PROHISIT PROPER DISCRETE SIGNALS-MOISTURE CONTAMINATED VERHIER ENGINE PRESSURE SALTCHES SHORTED OUT PROHISIT REPAITOR POTTING MAS ACCOMPLISHED. ZB-7-087 PART D-150 CAPTIVE ZB-7-087 PART D-150 CAPTIVE STOAT 1-4/EDMA YES ROCKETDYNE ROS NO L TO OPERATE. VERNIER ENGINE PRESSURE SALTCHES MERE POIND MOISTURE CONTAMINATED. REPAITOR PROPER DISCRETE SIGNALS-MOISTURE CONTAMINATED WERN MAINSTANCE WAS MOT ACHIEVED. PROME ELECHING WAS ACCOMPLISHED.	CORRECTIVE ACTION-BASTON P	OTTING MAS ACCOMPLISHED.					
E TO OPERATE. VERNIER ENGINE PRESSURE BATTCHES VERNIER ENGINE PRESSURE CONTAMINATED. PROPER DISCRETE SIGNALS-HOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SHITCHES SHORTED OUT PROHISIT FROM REACHING THE BOOSTER ENGINE START CIRCUITRY. REDATURE PROHILISM BATTCHAN TEST WAS PREDATURELY TERMINATED MADY IGHITCH STACE WAS NOT ACHIEV MASHITCH POTTING WAS ACCORDISHED. ZB-7-067 PART E-120 CAPTIVE STOAT 1-4/EDMA YES ROCKETOYNE KENNIER ENGINE PRESSURE SMITCH CAPTIVE STOAT 1-4/EDMA YES ROCKETOYNE WERNIER ENGINE PRESSURE SMITCH CAPTIVE STOAT FOUND HOISTURE CONTAMINATED. PROPER DISCRETE SIGNALS-ROISTURE CONTAMINATED YEARIER ENGINE PRESSURE SMITCHES SHORTED OUT PROHISIT PROMISE THE ACHIEVE THE START CIRCUITRY. PROPER DISCRETE SIGNALS-ROISTURE CONTAMINATED YEAR MAINSTAN MAINSTAND WAS NOT ACHIEVED. PROPER PROTIEM WAS ACCORDED BY THE TEST WAS PREDATURELY TERMINATED WASH MAINSTAND WAS NOT ACHIEVED.		19-7-067 PART E-123 FEMILIA EVGINE PRESSURE SMITCH	CAPTIVE	1	1-4/ED/4 VE	S ROCAETDYNE	4001
PROPER DISCRETE SIGNALS-POISTURE CONTAMINATED VERNIES ENGINE PRESBURE SIGTONES SHORTED OUT PROVISITY FROM REACHING THE BOOSTER ENGINE START CIRCUITRY. REPAITURE PROPULSION SHUTDOAM-THE TEST WAS PREPATURELY TERMINATED WHEN IGHITION STACE WAS NOT ACHIEVY M-SAUTCH POTTING WAS ACCOUNTINGED. ZB-7-D87 PART D-12D ZB-7-D87 PART D-12D CAPTIVE STOAT 1-4/EDMA YES ROCKETOVE VERNIES ENGINE PRESSURE SAUTCH CAPTIVE STOAT 1-4/EDMA YES ROCKETOVE FROMER DISCRETE SIGNALS-NOISTURE CONTAMINATED YERNIER ENGINE PRESSURE BUILTINGS PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED YERNIER ENGINE PRESSURE BUILTINGS SHORTED OUT PROVISITY FROM FELCHING THE SCORPE-THE TEST WAS PREDATURELY TERMINATED WHEN MAINSTAND WAS NOT ACHIEVED. M-SMITCH POTTING WAS ACCOUNTINGED.		ITE. WERNIER EHGINE PRESSURG BATTE	ES VERE FOUND HOUSE	TURE CONTAI	IM TEB.		
REDATURE PROPULSION SHUTDOAN-THE TEST WAS PREDATURELY TERNIMITED WHEN IGNITION STACE WAS NOT ACHIEV N-SMITCH POTTING WAS ACCOURTISHED. ZS-7-067 PART E-12D VERNIER ENGINE PRESSURE SMITCH L TO OPERATE. VERNIER ENGINE PRESSURE SMITCHES WERE POUND HOISYURE CONTAMINATED. PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDITY PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDITY PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDITY PROPER DISCRETE SIGNALS-NOISTURE TEST WAS PREDATURELY TERMINATED WHEN MAINSTARE WAS NOT ACHIEVED. N-SMITCH POTTING WAS ACCOMPLISHED.	SYSTEM EFFECT-IMPROPER DIS- ING START SIGNAL FROM REACH	CRETE SIGNALS-NOISTURE CONTAMINATI	ED VERHIEN ENGINE P UITRY.	REBBURE SA	TCHES SHOW	TED OUT PROHIBIT	
AN-SMITCH POTTING MAS ACCOMPLISHED. ZB-7-087 PART D-12D CAPTIVE ST0417 1-4/EDMA YEB ROCKETDYNE VERNIER ENGINE PRESSURE SMITCH L TO OPERATE. VERNIER ENGINE PRESSURE SMITCHES WERE FOUND HOISYURE CONTAMINATED. PROPER DISCRETE SIGNALS-PROISTURE CONTAMINATED YERNIER ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDE PROMISE PROPULATION CUTOFF-THE TEST MAS PREMIURELY TERMINATED WERN MAINSTARE WAS NOT ACMIEVED. NEWATCH POTTING WAS ACCOMPLISHED.	VEHICLE OFFICE-PROMITURE P.	MOPULATON BHUTDOM-THE TEST WAS PI	EMTURELY TERHINAT	51 NG-M 03	41 TECH 87AG	E MAS NOT ACHIEV	
ZB-7-087 PART D-120 CAPTIVE STOAT? 1-4/EDMA YES ROCKETOYNE VERNIER ENGINE PRESSURE SATTOR L TO OPERATE. VERNIER ENGINE PRESSURE SATTORES WERE FOUND HOLSYURE CONTAMINATED. PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SATTCHES SHORTED OUT PROVIDETY PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIER ENGINE PRESSURE SATTCHES SHORTED OUT PROVIDETY PROPER DISCRETE SIGNALS-NOISTURE CONTAMINATED VERNIERE PRESSURE SATTCHES SHORTED OUT PROVIDETY PROPER PROPULSION CUTOFF-THE TEST MAS PRESATURELY TERMINATED WHEN MAINSTARE WAS NOT ACMIEVED. PROMITCH POTTING WAS ACCOMPAINED.	CORRECTIVE ACTION-SMITCH P.	OTTING MAS ACCOMPLISHED.				:	
FAILURE HODE-FAIL TO OPERATE. VERNIER ENGINE PRESSURE SUITCHES MERE POUND HOISYURE CONTANINATED. STATCH EFFECT-INFROMER DISCRETE SIGNALS-HOISTURE CONTANINATED VERNIER ENGINE PRESSURE SMITCHES SHORTED OUT PROVIDE THE START SIGNAL PROVIDED PRESSURE SHARM THE SOCIETY START SIGNAL PROVIDED WENTELL EFFECT-FREMIUME PROPULSION CUTOFF-THE TEST HAS PREMIUMELY TERMINATED WHEN MAINSTANE HAS NOT ACRIEVED. CORRECTIVE ACTION-SMITCH POTTING WAS ACCORDINATED.		ENICA EMINE PRESSURE SATION	CAPTIVE	}	ON 802/1-1	8 ROCKETDYNE	50 03
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-POISTURE CONTAMINATED VERHIER EMGINE PRESSURE SMITCHES SHORTED OUT PROMISITING START SIGNAL FROM RELOUING THE SOCIETY EMBINE START CIRCUITRI. WENICLE EFFECT-PREMIURE PROPULSION CUTOFF-THE TEST MAS PREMIURELY TERMINATED WHEN MAINSTARE WAS NOT ACRIEVED. CORRECTIVE ACTION-SMITCH POTTING WAS ACCOMPLISHED.		IE. VERNIER EMSINE PRESSURE BUITCH	ES LERE FOUND NOIS	TURE CONTAI	GWTD.		
WENICLE EFFECT-FREMIURE PROPULSION CUTOFF-THE TEST MAS PREMIURELY TERMINATED WHEN MAINSTAKE WAS NOT ACRIEVED.	STSTEM EFFECT-INFROMER DISK THE START STOMAL FROM REACH	CRETE SIGNALS-POISTURE CONTANINATE	ID VERNIER ENGINE PI JITR/.	AESSURE SW	11CHES SHOR	TED OUT PROVIDES	
	NENICLE EFFET-MEMILINE M	ROPLESION CUTOPP-THE TEST IMS PRED	MTURELY TERNINATED	-	1746 MB H	OT ACMIENTS.	
		OTTING MAS ACCOUNTINGD.					
						PAC 0037	_

GENERAL BYNAMICS CONTAIR BIVISION

13 JUN 1966

DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

3737EX 346-5737EN	TEST/REPORT MUMBER FALLED COMPONENT MANE	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP	VEHICLE BITE DATE DATE DATE	PRI VENDOR NAME OTH VENDOR PART NO	
PROPULSION-MAI-A/B	TS-11,1138P-6 WERNIER LOR DUCT	CAPTI VE 7-70319	5A 871029	1-1/ED14 RD8	7E 8	***************************************
FAILURE HODE-EXTERNAL LEAR VALVE. POST-TEST INSPECTION	FAILURE HODE-EXTERNAL LEAR-DURING THE TEST THE PRESENCE OF VAPORS HAS EVIDENT IN THE VICINITY OF THE VE PROFELLANT VALVE. POST-TEST INSPECTION REVEALED THE LOR DUCT BEAN WELDS HERE LEARING.	F VAPORS INS EVIDENT DS NERE LEAKING.	EN THE WE	CINITY OF	THE VE PROFELLANT	
SYSTEM EFFECT-LOW TEMEDIATURE ENVIRONMENT.	PERATURE ENTROPENT.					
WHICH EFFECT-HOM.						
CORRECTIVE ACTION-MANDAR	. Teo					
Propiestop-me-a/B General	WALVE-FILL AND DRAIN LOR	UTP-PRT E7-02102-631	\$ 1. 30%)/ 9	7E8 STRATO8 59-460-02	9
FAILURE MODE-ACTUATOR THE ARMATURE MEARING TH	FATLUNE MODE-ACTUATOR FAJLUNE-FAILUNE OF MOTOR HAIS CAUDED BY INSTALLATION OF EXTRA-LONG WIRE LEAD WHICH DRAGGLD ON THE ARMATURE NEARING THROUGH THE INSULATION AND SHORTING THE MOTOR	BY INSTALLATION OF I	extra-long	WRE LEAD	WICH DRAGGED ON	
CORRECTIVE ACTION—BUALITY NOW SATISFACTORY ACTUATOR	CORPECTIVE ACTION-MULITY ASSURANCE REJECTED THE LOFF AND THE VENDOR REPLACED POTENTIALLY DETECTIVE ACTUATORS WITH NOW SATISFACTORY ACTUATORS, NAMERACTURING PROCESSES MANK BEEN HOBIFIED TO PRECLUSE REOCCURANCE OF THIS PROBLEM.	THE VENDOR REPLACED I	CTENTIALL	T DEFECTIVE	E ACTUATORS MITH R THIS PROBLEM.	
PROPULSTON-M3-A/B GENERAL	2C-5-223/72-33W-01-11	COMPOST TE-PROVORE	11C ?90606	12 CTR	7E8 100	3
FAILURE MODE-LEAK-ERTE	FAILURE MODE-LEAK-ERTERMAL, AFTER THE TAKKING TEST, 3 NINOR PUEL LEAKS WERE FOLAD. THO FURTHER DATAI.	וסור דעבו עבאני אבחני דינ	LAD. MO.	אינו אינו אינו	747.	
BYSTEM EFFECT-MOME.						
MONICLE ETTECT-NOME.						
CORRECTIVE ACTION-LEAKS RE	IS REPAIRED.					
PROPULSTON-M1-A/B	ZC-7-211/P4-203-00-13 Tretue T CAMBERS	PIGNI	\$17044 9K1	14/ET#	5 Q	
FAILURE MODE-FAIL DURING OPCINITION. STRUET IN MAS CARRILD SO THE EXACT CAUSE WAS NOT DE B EXCESSIVE MEAT IN THE DUBINE COMPARTHERY.	FAILURE MCOC-FAIL DURING CPCRATICM. STREETRICAL LOAS OF THRUST OF BOOSTER AND BASTAINER DURINES. NO TELEMETRY SYSTE I MAS CAMPILD SO THE EXACT CAUME MAS NOT DETERMINED. PLIGHT CONTROL SYSTEM MAS AFFECTED. POSSIBLE CAUME OF FAILURE I I EXCESSIVE MEAT IN THE DURINE COMPARTHERY.	WHENT OF BOXBITS AND IT CONTROL BYBITS WAS	BUBTA: HER APPECTED.	DRINES. POSSIBLE	NO TELEMENT SYSTE CAUSE OF FAILURE 1	
STATCH COTTECT-OFCIATION STOPM	BEFORD EFFECT-OFFIGURATION STOPS PREDICTIONS AND TOLES OF RE-ENTRY VEHICLE TELEMENTS BATA AND TRACKING BATA INDICATED AND INDICATED	-Cotter violence facilities	THY OATA	MD TRACKE	M BATA INDICATE	
WHAT OFFET-MONTHE	ME PROPRESION SHIFTENES. HERSILE INSTANTITY POPERTO.	TABELITY POPETO.				· · ·
					PadE 9834	

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	872 W.a. 846973 W.a.	Fater Transport man	EIF CATA BOWCE PAAT BANKE	MENIOLE M. W. O.P.	11 ME 114	ē g	OR APPA SOSION RADO ATE SHILL	
لـــا	COMMECTIVE ACTION-MEESES							3 2 2
11	PROPERTY STORT HELP LAND	29-7-473/11-163-48-67 strains besconger	CUTIK	e 8	1-1 /100	88		***************************************
	FRITURE MOSE-CHRATIC OFF	ENATION. ACNOTING WANTE REPUBLIES OCCURATE DE TO INLITUKCITORING OF THE PROPULSION ELECTRIC	OCCUPACE DEE TO HALL	THE TIGHT IS	b E	Š	Ston CLECTBIC	
	BYSICH EFFET-EMATIC OFCIATION.	PDATION. IN PROPERTION SYSTEM OF CHAILCH INS. CHAILIC.	SATION ISS CINATIC.					
	WHAT EFFET-PERMINE	E MOTHELETON CONOT.						
	CONECTIVE ACTION-MOME.							
	PROPULSION-NA1-A/B	28-7-073-711-2012-18-67	CAPTIVE	i	Ξ	8		-
	FALLUME HODE-PRENATURE OF EMANNY WALVE HALPURETION SYSTEM DFTECT-OPENATION	MEAN. STOLLER HODE-PRENETURE CPERATION. IGNITION DETECTOR BELAY TINER INSTINATED CUTOFF WACH THE GROUND FUEL START TANK OR MALANY WALVE INJETIMETIONED. SYSTEM CITECT-OFFRATION STOPS PREDATURELY.	TINCR IN:TIANTO CUM	2 2 2 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	E CECURO	2 2	START TAKE OR	
	MENICAE EFFECT-PROBLING PROPULSION CUTOFF, CORRECTIVE ACTION-HEPLACE BREAKANNY WAVE.	C PROPALSION CUTOTT.						
	PROPALSTON-HAS-A/B	28-1-0742E-207-42-01	CAPTIVE		# / J.C	2 1		1
					3	?		
	FAILURE MODE-PREPARTURE (FAILUME MODE-PREPAITURE OPCRATICA. PRESAINCE ENGINE CUTOIT MAS INCTILATED MAEN A NIGH TEMPERATURE MAS INDICATED EDMON EDUCALT IN THE SHAUST SECTION DUE TO AN INSTRUMENTATION MAJUNICITION.	MAS INSTIATED MEDI- THETION.	MICH TOO	DRATURE		DICATED ERROR	
	STATES EFFECT-OFENATION	STOPS PREDUTABLITY.						
	WENTOUR EFFECT-PREDATURE	E PROPULSION CUTOFF.						
	CORRECTIVE ACTION-REPAIR	R IMBIRUNDIFATION.						
28	PROPULSTON-NAT-A/B SCHEDAL	28-7-078/3E-204-4E-03	CAPTIVE	18 9e0430	347.4K	8 8		***************************************
- u	FAILURE MODE-FAILED TO C SOURE FAILED TO RECORD FT ER ISHITTON.	PAILURE HODE-FAILUD TO CHERATE AT PRESCRIBED THE, MEDIATURE ENGINE CUTOFF WAS INTTIATED WHEN VERHIER FLEL TANK PAE SOME FAILUD TO RECORD PRESSURE BUE TO AN INSTRUMENTATION HALFUNCTION, CUTOFF OCUMED BETHEEN COMMIT START AND VERHI ER ESMITTON.	RE EMBINE CUTOFF NAI MUTUKTION. CUTOFF (S INITIATED XURNED BET	MACH VE	2 × 2	FLEL TANK PAC TANT AND VERNE	
	BYBYEN SPYECT-OFERATION	BOES NOT START.						
	WHICH CIVET-PREMIUM	E MONUSION CUTOTT.						
	CONSCIT SE ACTION-PEPATI	R SINDTRANCOSTATION.				į		
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							TANK WOL	

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OIFF CULTIES SEVIEW-PROPULSION STREEN-ALABORNE

STSTEN BUB-STSTEN	TEST/REPORT NUMBER PARLED COMPONENT NAME	62F BATA BOLNCE PART NUMBER	OATE GIF	817E 11ME DJP	1 H 0	SITE PRI VENDOR NAME TIME DIP OTH VENDOR PART NO	
FROPULSION-MI-A/D SCHERAL	28-7-070/12-601-41-01 Enging Pelay Bon, Pin	CAPTIVE	18 9803£0	82 / 3YC 9	2 Q	YES ROCKETDYNE	•••
FAILURE MODE-FAIL DURING POR.	FAILURE MODE-FAIL DURING OPERATION. AN ABHORMAL BHUTDOMN BEQUENCE RESULTED PROM A GROUNDED 21N IN 7HE ENGINE RELAY OM:	NEKE RESULTED FRO	H A GROUND	2 22 22	Ž	CHEINE RELAY	
SYSTEM EFFECT-OPERATION I	SYSTEM EFFECT-OFCRATION STOPS PREMATURELY. PREMATURE EMBINE EMUTDOMN.	EHUTDO-M.					
WAICLE EFFECT-HOLE.							
CORRECTIVE ACTION-REPAIR MIRING.	MRING.						
GDERAL GDERAL	F7A2710/P4-1G2-00-15 EMEINE NELAY BOK	È	15A \$60316	14/ETR	5 Q	YES ROCKETOYNE NO	618038
FAILURE MODE-OUT OF SPECI	FAILURE HODE-OUT OF SPECIFICATION. DIGINE RELAT BOX WAS AN UNHODIFIED TYPE AND NOT SUITABLE FOR OPCRATION.	NACOLFIED TYPE AND	NOT BUITAB	רב ויסא ס	PCA A T	Š	
SYSTEM EFFECT-EMANTIC OFF	SYSTEM EFFECT-ERRATIC OPERATION. DURING THE IGNITER ORECK IN THE FRECOUNT, THE BOG IGNITER CIRCUIT DID NOT CHECK OU PROPERLY.	N THE FRECOUNT, THE	200 1911	ER CIRCU	11 01	MOT DIECK OU	
WHICLE EFFECT-COMPONE	VEHICLE EFFECT-COUNTDOMN ABORTED AND RESCHEDULED. THIS PROBLEM TOSETHER WITH ANCHER PROBLEM CAUSED TEST CANCELLATY No.	LEN TOSETHER WITH A	ACTHER PRO	PLEN CAU	8	EBT CANCELLAT?	
CORRECTIVE ACTION-REPLACE D	E DIGINE RELAY BOX.						
PROPULSICH-NA1-A/B CDCBAL	FTAPTIG/P4-101-00-15 ENGINE NELAT BOW, NELAT	ويغز	15A 900317	14/678	5 G	TES ROCKETDTNE	88758
FAILURE MODE-FAIL DURING	FAILURE MODE-FAIL DURING OPERATION. THE FLIGHT LOCKIN RELAY IN THE ENGINE RELAY BOX FAILED.	IN THE ENGINE RELA	Y BOK FAIL	á			
SYSTEM EFFECT-OFFRATION I	SYSTEM EFFECT-OFFRATION DOES NOT STANT. PROPER OPENATION COULD NOT IN EMETHE RELAY BOX.		DUE TO FA	TUPE OF	ž	BE ATTAINED DUE TO PAILURE OF PLIGHT LOCKING REL	
VENTCLE EFFECT-COMPDOING	VENICLE EFFECT-COUNTDOMN DELAYED. TOTAL COUNTDOMN MOLD TIME WAS ERS KINUTES. TIME CMARGED TO THIS PROBLEM IS INDETE HIMITE.	WAS 229 NINUTES. 1	INE CHARGE	1MT OT 0	\$.	BLEN 18 INDETE	
CORRECTIVE ACTION-UNKNOWN.	•						
PROPULSION-MAI-A/B GENERAL	DIGINE RELAY BOX	CAPTIVE	14A 900110	1 A /CDUMR D.P.	ž 8		
PAILURE MODE-PAIL TO OPERATE MOMENTE CUTOFF. THE SOURCE	RATE AT PREDCRIBED TIME. CAUBE OF BHUTDOME, AB INCICATED BY EA RECORDS. MAS A PREPARATION I	NUTDOM, AB 1101CA1	ED DY 62 R	Econds.	4 8 4	PREPARATION 1	
Bratth EPFECT-OPERATION IN ISSUITION PAGE.	SPETEN EPPECT-CPERATION STOPS PREPATURELY. THE PROPULSION SYSTEN CPERATION WAS TERMINATED PRENATURELY IN THE BOOSTE IGHITION PHASE.	VSTEN OPERATION WAS	TERMINATE	D PREMAT	A TO SET	1M THE BOOBTE	
					Ì	PASE 0040	

GENERAL DYNAMICS CONVAIR DIVISION

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13 JUN 1966

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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	ULBION SYSTEM-AIRBO			
3731EH 848-878TEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	DATE DIF TIME OIF OTH VEIL	D OTH VEN.	
VEHICLE EFFECT-FREMATURE	RE PROPULSION CUTOFF.				
CORRECTIVE ACTION-HINDS	CORRECTIVE ACTION-WINDR CIRCUITRY CHANGES AND INSTRUMENTING ADDITIONAL EA SERVENCE MEASURENCHIS TO VERIFY PAY TO AN TOOM.	A ADDITIONAL EA SCA	UENCE MEABUREMENTS	TO VERIFY PIN' IN LA	
PPOPULSICA-MAI-A/B GENERAL	EN-7331-1,11E-3P9-05 ENGINE RELAY BOX, RELAY WIRING	CAPTIVE	5A 1-1/EDMA 871024 RD3	A TES	**
FAILURE MODE-OUT OF TO	FAILURE MODE-OUT OF TOLERANCE. THE EMBINE RELAY 11-80C MAB MIRED INCORRECTLY.	WINED INCORNECTLY.			
SYSTEM EFFECT-MOME. BT:	SYSTEM EFFECT-MOME, BYSTEM MAS NOT IN OPENATION.				
VEHICLE EFFECT-104. S	WENTELE EFFECT-NOR. SYSTEM MAS NOT IN CPEDATION.				 -
CORRECTIVE ACTION-THE	CORRECTIVE ACTION-THE ENGINE RELAY MAS REPLACED.				
PROPULSION-MI-A/B GENERAL	28-7-057/102-1 LOK START TAM REGLEATOR	CAPTIVE	1A 51/3YC 561271	YES YO	3
FAILURE MODE-OUT OF SPECIFICATION. BOOS NO 0.6 SECONDS. AFTER NAVING RISEN PROM ESSURIZED DURING THE PRE-TEST COUNTDOM.	FAILURE MODE-OUT OF SPECIFICATION. BOOSTER START TAME REGULATOR PRESSURE DROFPED FROM 100 F 15 BETWEEN 0.0 A ND 0.6 SECONDS. AFTER NAVING RISEN FROM THE PRE-TEST SETTING OF 655 PSIG TO 605 FSIG. MHEN 144 LOS COLF TAME WAS PRESSUREED DURING THE PRE-TEST COUNTDOWN.	RATOR PRESSURE DROF IS OF 635 PRIG TO 60	EN CONTROL OF CONTROL	O P 16 BETWEEN 0.0 A	
SYSTEM EFFECT-OFFICATION TOD HIGH.	M TOO HIGH.				
WENTELE EFFECT-NOME.					
CORRECTI AE ACTION-UNKNOWN	O.P.				- 1
PROPULSION-NAI-A/B GENERAL	ZB-7-057/102-1 LOR START TAME	CAPTIVE	1A 11/37C 3017E1	7E3 NO	1364
FAILURE MODE-OUT OF BPECT	ECIFICATION. THE FRE-TEST LON START TAKK PRESSURE WAS APPROXIMATELY 100 PSI HIGHER THAN THE	TALS PRESSURE UN? A	PPROGRAMMELY 100 F	191 HIGHER THAN THE P	
SYSTEM EFFECT-OPERATION TOO HIGH.	M TOO HIGH.				
WONCLE DFECT-HOME.					
CONSECTIVE ACTICAL-UNKNOWN	Ow.				
					
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CENERAL DYNAMICS CONVAIR DIVISION

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DIPPICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

818-9787EN	TEAT/REPORT NUMBER FAILED COMPONENT HAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	110E C1F	OTH VEND	TINE CIF OTH VENDOR PART NO	
PROPUESION-NAI-A/B SEMERAL	2C-7-036/14,103-18 REGULATOR	CAPTIVE	807098	1-4/EDMA YES	ž č		000
FAILURE HODE-OUT OF EXPT TIME TOO LOW (490 PS16 RI	FAILUME HODE-OUT OF EXPECTED TEST VALUE. LOW PREPORMANCE HAS CAUSED BY THE LOX START TAIM PRESSURE REGULATOR REGULA. Time too Low 4450 PSIG RECORDED AND 840 PSIG SPECIFIED).	ALS CAUSED BY THE LO	START TAN	K PRESSUA	E REGULAT	OR REFULA	
SYSTEM EFFECT-OFENATION	N 700 LGM.						
MONICLE EFFECT-PREDATUR	VENICLE EFFECT-PREMIURE PROPULSION CUTOFF. MANUAL CUTOFF WEN TURSOPUMP PERFORMANCE MAR TOO LON.	HEN TURBOPUS PERF	AMME IMB	18 CQ.			
CORRECTIVE ACTION-LINENGEN.	÷.						
PROPULSTON-MAE-A/B	3P-90-00-3129F TUBE ASSEMENT-OKIBIZER, B-MUT	FAR 27-11964-37	1190 63050£	1-E/PALC YES	ž 0		9057306
FAILURE MODE-EXTERNAL OF MAT 16, 1943 FROM VI	FAILURE MOKE-ENTERMAL LEARAGE, B-MUT LEARAGE, POSSIBLE STRESS RELANATION. MUT MAS RETORGICOS OF MAT 16, 1943 FROM VATS CONFIRMED THAT TUBE ASSENBLY NOULD NOT BE FORMARDED FOR AMALYSIS.	STRESS RELAXATION. MUT MOULD NOT BE FORMARDED	MS RETORGIED AND LEAK STOPPED. A TWE FOR AMELYSIS.	UED AND L	EAK 8100	6 . 4 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5	
CORRECTIVE ACTION-60/A LACTION AND REQUESTED TO NUT HAS BEEN CHANGED.	IS CONDUCTING TESTS ON D-NUT STREAS RELAKATION. APPROPRIATE PERSONNEL MERE INFORMED OF THERE OF PARTICULAR ATTENTION TO TORNUTING D-NUTS. PER RAR SP-50-04-5448. MATERIAL USED TO MAKES-	B RELAKATION. APPROFI ING B-MUTO, PER RAR (11ATE PERSO P-80-06-54	WEL WERE 60. MTES	THPORNET	OF THESE TO MACES.	
PROPULSTON-MA2-A/B	F7A2128474-101-00-00	COUNTDOINE	\$ \$709.20	3.0	£ 50		
FAILURE MITT-EXTERNA LI	LEAK. PORT TERT INVERTIGATION NEWGALED A CAPPED INSTRUMENTATION BOAR LEARING.	ED A CAPED INSTRUM	HATION BO	BB LEAKTY	.		
SYSTEM EFFECT-NOME.							
VENICUE EFFECT-NOVE.							
CORRECTIVE ACTION-REPLACE CAP AND VALVE.	ACE CAP AND VALVE.						
PROPULSTON-WAZ-A78 BODG TER	82-4HO-01-61 82 16H1TB FUEL VALVE	CONFORT TE-PRD/DPL	91D 931100	R ATR	VES ROCKETDYNE NO	TOVNE	68383
FAILURE MODE-LEAR EXTERNAL.							
SYSTEM EFFECT-CONTANGUATION.	A7100.						
MENICIE EFFECT-COMPON	A ACOUTO.						
CORRECTIVE ACTION-TORGO	UED FITTINGS.						
							
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	DIFFICULTIES REVIEW-PROPULSION STRIGH-AIRBORNE	LATON STATEM-AIRBOR	W				1
8787EM 80 6 -8787EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	317E TINE OIF	ž Š	PRI VENDOR NAME OTH VENDOR PART NO	
FROPULSTON-HAR-A/B	80C/BRF83-04483-40E-00-88 TUBING-FLEX, 6 6 LOOP	P.IMI	66 0 6905 27	83/47R 116	5 2		***************************************
FAILURE MODE-LEAR-EXTER EN: PREUMATIC REFERENCE S BETYELM LOK REGULATOR	FINE, LEAR IN ONE OF THE FOUR SYSTEM AND PACE MALVE MOST SUBPECT.	BOOBTER GAB GENERATOR LOOP AREAS. LOK FEED LOK PEED BYBTEN CONSIDERED NOBT PROBABLE. 1	AREAS. LO	N FEED BY	BYBTEN, HOT	. HOT GAS 3737	
STSTEM EFFECT-LOSS OF A	STSTEM EFFECT-LOSS OF STRUCTURAL INTERRITY. LEAK IN BOS LOOP CAUSED DROF IN BOOSTER STSTEM PERFORMANCE AND AT 122 ECONDS RESULTED IN EXPLOSION.	P CAUSED DROP IN BO OWN RESULTED FROK E	SSTER SYST	EN PERFO		C AND AT 122 8	·
WENICLE EFFECT-LOSS OF VEN DESTRUCTION AT ELS SECUEDS.	WONICLE INTEGRITY, EXPLOSION IN THRUST MECTICN CAUSED DAMGE WHICH RESULTED IN VEHICLE SELF.	OT OCCITOR CAUSED O	IMEE WIS	H RESILT	≛ 8:	WEHICLE SELF	
CORRECTIVE ACTION-TORNI OR TRICH-LUSH HAS BEEN SPECIAL INSPECTION OF P	CORFECTIVE ACTION-TORNIC RENUINDENTS IN 866 LOK PEDI LINE CLARIFIED. RENUINDENT TO DISCONECT 866 LOK PEDI LINE I ON TRICH-PLUSH HAS BEEN DISCONTINUED ON MA-E. SPECIAL INSTALLATION PROCEDURES FOR PLEX MOSES DEVELOPED. INPLEMENTED SPECIAL INSPECTION OF POLER PACKAGE 6AS EXPERATOR SYSTEM LOOP.	CLARIFIED. REGUINES PLATION PROCEDURES P	ENT TO BIS	COMECT I	3 B	X FEED LINE F JAPLENENTED	
PROPULSTON-WAE-A/B	60463-0690/83-403-00-142 LOK REGULATOR	P.ISIT	1420	6-3/MR	27 G		***
FAILURE MODE-FAILED DUR TICKIME.	RING OPERATION-THE LOK REGULATOR REFERENCE LEVEL SHIFTED WORT PROBABLY DUE TO THE REGULATOR	NDKE LEVEL SHIFTED	HOST PROS	ABLY DUE	5	E REGULATOR 8	
STREET STREET-OPERATION PPROXIMATELY S PRI EACH !	N TOO LON-ENGINE PERFORMANCE LEVEL CHANGED. BOTH BOOSTEN THRUST CHANGER PRESSURES DECREASED AND THE B66 CONSULTOR CHANGER PRESSURES DECREASED 6 PSI.	AMEED. BOTH BOOBTER	hatus to	AIGCR PR		IS DECREASED A	
WHICH EFFET-HOME.							
CORRECTIVE ACTION-NOW.	•						
PROPULSI CH- NA2-A/B BCC6 7ER	AEGZ-0730/NZ-404-00-67 BOOSTES CONTROL PREUMATIC NEGLLATO R	A1641	870 62 0409	8-2/WTR	7.E8	YES ROCKETÖYNE HD	34 34
PAILURE MODE-OUT OF ESPECIFIED LIMITS LATOR ALTHOUGH AN INSTRUMENTATION	PAILURE MOE-OUT OF EXPECTED TEST VALUE. THE OUTLET PRESSURE OF THE BOOSTER CONTROL RESULATOR INDICATED APPROXIMATE If 800 PRIG WACHE SPECIFIED LIMITS AND 725 TO 775 PRIS. THIS PROBLEM MAS BEEN ATTRIBUTED TO A MALFUNCTION IN THE RES LATOR ALTHOUGH AN INSTRUMENTATION MALFUCHTION IS A POSSIBILITY.	E OF THE BOOSTER CO PROBLEM HAS BEEN A 177.	TRIBUTED	10 A ML	10 C T T T T T T T T T T T T T T T T T T	D APPROXIMATE ION IN THE RES	
878TF EFFECT-MOM.							
WENTELE EPPECT-HOME. THE IDLE EPPECTO.	HE LONGER PRESENTE WAS APPARENTLY SUPPICIENT TO PERFORM ALL RESURED FUNCTIONS WITH NO DISCERN	ICIENT TO PERFORM A	T REGULA	D FUNCTIO	5 1	TH NO DISCERN	
CORRECTIVE ACTION-NOIS.							
							
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REC VEHICLE BITE PRI VENDOR NAME R. DATE DIF TIME DIF OTH VENDOR PART NO	7	OUTLET PRESSURE OF THE SCOSTER CONTROL REGULATOR INDICATED 725 PSIG AT LIMITS ARE 725 TO 775 PSIG.	ERFORM ALL REBUIRED FUNCTIONS.		1340 0-2/V/R YES 094504 020323 110 NO	FAILURE MODE-OUT OF EXPECTED TEST VALUE, AT 110.5 SECONDS: THE BI PLAP SPEED DROPPED FROM 5,877 TO 5,848 RPM. POSSI BLE CAUSES INCLUDE-1: EXCESSIVE MEATING OF THE 866 REFERENCE REGULATORIZ: DECAY IN BOOSTER CONTROL PRESSURE DOANSTRE AM OF REGULATORIS: LEAK IN DUCT BETWEEN 66 AND BI TUMBINE INLET AND 4: UNKNOWN HINOR PROBLEM WITH 866 LOX REGULATORI.	ATION. DROP IN PLAF SPEED APPARENTLY REBULIED IN 8 PSI DROP AND RECOVERY OF 82 CHARGES PR SECONDS. BI CHANGER PRESSURE DATA WAS INVALID.	VEHICLE EFFECT-NOME. NO DETRINGNTAL EFFECT ON OVER-ALL EMBINE PERFORMINCE. RE-ENTRY VEHICLE INPACT WAS SATISFACTORY		520 B-3/WR YES ROCKETOYNE 004561	FAILURE MODE-LEAR-EXTERNAL-THERE WAS A HOT GAS LEAK IN THE BOOSTER GAS GENERATOR OR 118 DISCHARGE DUCT THAT WAS EVI	SYSTEM EFFECT-OPERATION STOPS PREMATURELY-THE MOT GAS LEAK CAUSED A MISM TEMPERATURE CONDITION IN THE EMSINE COMPAN THEMT WHICH RESULTED IN PREMATURE SHUTBOOK OF THE SUSTAINER/VERNIER EMSINES AT AS SECONDS AND THE BOOSTER EMSINE AT AS DECONDS.	DESTRUCT-THE PROPULSION SYSTEM PAILURE RESULTED IN VEHICLE SELF DESTRUCTION AT 71 SECOND		
PULSION SYSTEM-AIRS DIF DATA SCURCE PART HUSER] 2	WE OF THE BOOSTEI 25 TO 775 F316.	DEFICIENT TO PE		P.164	i, The Bi Purp APE CE Resulator, 2) D INLET AND 4) UNKN	ENTLY RESULTED IN ITA MAS INVALID.	MINE PERFORMINE.		FLIGHT	E BOORTER GAN GEN	A CAUSED A MIGH TO TAY TO THE TAY THE T	FAILURE RESULTED		
DIFFICULTIES REVIEW-PROPULSION SYSTEM-SIRBORNE TEST/REPORT NUMBER DIF DATA SOURCE VALLED CONFORMT NAME PART NUMBER OF PART NUMBER	ALER -0153/83-401-00-187 BOOSTER CONTROL PREMATIC REGULATO	PECTED TEST VALUE. THE CUTLET PRESSURE OF THE SCOS STER CUTOFF. SPECIFIED LIMITS ARE TES TO TTS F316.	STRICH EFFECT-MOME. Vehicle Effect-Mome. The Pressume Suffled has Affarently sufficient to perform all resulred functions.	ì	AERE-0317/DE-401-00-134 PUMP-TURBO	FAILURE MODE-OUT OF EXPECTED TEST VALUE. AT 110.5 SECONDS. BLE CAUSES INCLUDE-1) EXCESSIVE HEATING OF THE BGG REPEREN AM OF REGULATOR,3) LEAK IN DUCT BETWEEN GG AND B1 TUMBINE I	~	O DETRINENTAL EFFECT ON OVER-ALL EN	Chèr.	AEGE-0211/83-401-00-82 648 6EJERATOR	RML-THERE MS A HOT GAS LEAK IN TH MY MAVE BEGUN AT ENGINE START.	N STOPS PREDATURELY-THE HOT GAS LEAN PREDATURE SHUTDOWN OF THE SUSTAINES			
8787EN 848-8787EN	MOPULSI CH-ME-A/B BOCKTER	FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE LIFTOFF AND 7ED AT BODGITE CUTOFF. SPECIFIED	WHILE EFFET-NOME. TO	CORRECTIVE ACTION-NOME.	PROPULSION-MAE-A/B BOOSTER	FAILURE MODE-OUT OF EXE BLE CAUSES INCLUDE-1) ES AM OF REGULATOR,3) LEAK	STATEM EFFECT-EMPATIC CPED	VEHICLE EFFECT-NOME. IN	CORRECTIVE ACTION-LINKHOMM.	PROPULSION-MAE-A/B BOOSTER	FAILURE MODE-LEAK-ENTERMAL DENT AT 16 BECOMDS AND MAY	SYSTEM EFFECT-OPERATION THEM THEM THEM THEM THEM THEM THE THEM THE THEM THE THEM THEM	WHICLE OFFECT-IMOVERTENT 6.	CORRECTIVE ACTION-HOLE.	

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DIFFICULTIES REVIEW-PROPULATOR AVAIEN-AIRBORNE

818-575TEM	TESTREFORT HUMBER FAILED COMPONENT MANE	DIF DATA SOURCE PART HUMBER	VEHICLE DATE DIF	11 TE 01 P	VEHICLE SITE PRI VENDOR NAME DATE DO THE DIP TIME DIP OTH VENDOR PART NO	
PROPULSION-ME-A/B BOOSTER	AA60-0139/60A PR-408-00-01 ROJEH COMUNTION	COUNTDOM	910 601215	18/ETR -80	768	••••
FAILURE MODE-PREMATURE	FAILURE MODE-PREMATURE OFERATION, SENERATED RCC PROM BOORTER SYSTEM PRICK TO EMBINE START.	A SYSTEM PRICE TO E	HEINE STAR	.		
SYSTEM EFFECT-IMPROPER BISCRETE SIGNAL.	DISCRETE SIGNAL.					
WENICLE EFFECT-COUNTDONN DELAYED.	H DELAYED.					
CURRECTIVE ACTION-UNKNOWN. SYSTEM DISABLED.	AM. SYSTEM DISABLED.					·
PROPULSI CH-MQ-A/B BOOS TER	AEG0-0541 /P1-402-01-71 Pure-Turbo	PLICHT	710 •01013	11/ETR 185.5	YES ROCKETDYNE NO	6963
FAILURE MODE-OUT OF EMPECTED A PEAK OF GEGO RPM AT 139.4 B A PARTIAL OBSTRUCTION IN THE	FAILURE MODE-OUT OF EMPECTED TEST VALUE. BI PUMP SPEED BEGAN AN ERRATIC INCREASE FROM 6111 RPM AT 139.9 SECONDS TO A PEAK OF 6260 RPM AT 139.4 SECONDS. CHANGER PRESSURE DECAYED TO 474 PSIA OMER THE SAME INTERVAL, PROBABLY CAUSED BY A PARTIAL OBSTRUCTION IN THE LOK LINE UPSTREAM OF THE STASING VALVE.	N AN ERRATIC INCREAS D TO 474 PRIA ONER ME VALVE.	DE FROM BE. THE BANE TO	II ROW AS NTERVAL.	135.5 SECONDS TO PROBABLY CAUSED BY	
SYSTEM EFFECT-OFCRATION TOO AY. DEVIATIONS IN YAM RATE AN	SYSTEM EFFECT-OPCRATION TOO LOM. BI CHANGES PRESSURE DECREAGED TO 474 PRIA AT 139.2 BECONDS RESALTING IN THRUST DEC AY. DEVIATIONS IN YAM RATE AND EMBINE POSITION SIGNALS WERE CASERVED.	MED TO 474 PEIA AT	139.£ eCCO	nese equ	TINE IN THRUST DEC	
VENICLE EFFECT-HOME.						
CORRECTIVE ACTION-NOIC.						
PROPULSION-MAE-A/B BODSTER	AA60-0118/P1-401-00-71	COUNTDOM	710 601007	11./ETR -140	2 2	£ .
PAILURE MODE-PREDATURE (ENGINE CUTOFF.	FAILURE MODE-PREDATURE OPERATION. BI BACKUP ROUEM COMBUSTICM CUTOPP TEST SMITCM MAS INADVERTANTLY ACTIVATED CAUSING DIGINE CUTOFF.	4 CUTOFF TEST BASTCI		VER TAHTL!	ACTIVATED CAUSING	
SYSTEM EFFECT-INFROPER (STATCH EFFECT-INPROPER DISCRETE SIGNALS. ENGINE CUTOFF WAS RECIEVED DUE TO INADVERTANT RCC TEST SMITCH ACTIVATION.	ECIEVED DUE TO INM	VERTANT R	20 7637 1	WITCH ACTIVATION.	
WENICLE EFFECT-COLATIONS	WENICLE EFFECT-COMMIDGIN DELAYED AND RECYCLED TO 1-7 HIMPTES.	i			•	
CORRECTIVE ACTION-UNKNOWN.	.					~
PROPULS GOM-NA2-A/B BOOD TEX	ADSO-DOSS BOOSTER 1 CHANGER PRESSURE BATTCH	COUNTDOAN PB\$110~450	330	R A	YES ROCULTOYME	
FAILURE MODE-FAIL TO OPTRATE O MAINSTAGE.	ERATE AT PRESCRIBED TIME. BOOATER CHANGER PRESSURE BUITCH DIO MOT PICK UP AFTER TRANSITION T	WEER PRESSURE BUTTLE	N 010 NOT	PICK &	AFTER TRANSITION T	
STATEM CPTECT-OPERATION STOP	STOPS PREMATURELY. EMSINE SMUTBOOM INS EFFECTED.	46 EFFCT10.				

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

VEHICLE SITE PRI VENDOR MANE DATE DIP TIME DIP OTH VENDOR PART NO	T HAD NOT OCCURRED. 696751	PALC/1-1 YES NOCKETOVNE 093643	PEAR DUBING TEST. CAUSE U		PALC/1-1 YES ROCKETDYNE 083644			11/ETR VES POCKETDVHE 007300	D STAPTING 1.29 SECONDS AFT 10 PCT. STARTING AT 1.31 SE REQUITED IN A MAJOR EMEINE	ITD IN COMPLETE LOSS OF THE ITOR THE LAURCHINGS OF PUTU HE LATER INCORPORATED.	
ION STREM-AINSONG DIF DATA BOURCE VEHICLE PART NUMBER DATE DIF	MS MAINTAINED SINCE LIFTOF MITH A LIKE UNIT.	290	OSCILLATED & POIG PEAK-TO	Riet.	919009	LED TO FIRE. CAUSE UNKNOWN.		FL1647 46D 1	THE SAURES WERE INDICATED MOPPED OFF APPROXIMATELY IT 1.40 BECOMB.	A PROPULSION SYSTEM RESULT LOCKIN. ATTOR HAS PROVIDED TO MONI	
TESTARFORT NUMBER TESTARFORT NUMBER FAILED COMPONENT NAME PART NUMBER D	VENICLE EFFECT-PREVATURE PROPULSION CUTOFF, VENICLE INTEGRITY WAS MAINTAINED SINCE LIFTOFF HAD NOT OCCURNED CONECTIVE ACTION-THE PRESSURE SHITCH WAS REMOVED AND REPLACED MITH A LIKE UNIT.	Ab40-0015 /0A230/L1-401-00-57 FRF BOODTER LOK RET RES	FAILUNE MOSE-ERRATIC OPERATION. BOODTER LOK REFUNENCE REBULATOR OBCILLATED & PDIS PEAK-TO-PEAK DURING TEST. CAUDE U Kmolm. System Eptect-Nome. Firing buccessful.	WHICLE EFFECT-HOME. PRF SUCCESSFUL, REGULATOR CHANGED PRICK TO PLIGHT, CORRECTIVE ACTION-USKNOWN.	AD60-0051 /DA226 /LT-401-00-57 FRF	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, BE IGNITER FAILED TO FIRE, CAUSE UNKNOWN. STSTEM EFFECT-OPERATION DOES NOT START, BY EMGINE DID NOT START.	VENTCLE EFFECT-COUNTDOMN ABORTED AND ME-NCNEDULED. PRF ABORTED. CORRECTIVE ACTION-UNKNOAM.	AZC-E7-120/CORVATRP1-401-00-46 PLT	FAILURE MODE-FAILED DURING OPERATION. ABMORMAL BE THRUST CHANGER PRESSURES MERE INDICATED STARTING 1.29 SECONDS AFT CAS SUSTAINER FLEWAT LOCKIN. AT THIS TIME THE PRESSURE ROSE GADUALLY UNTIL AN EXPLOSION OCCURRED AT 1.60 SECONDS. SYZTEM EFFECT-EXPLOSION, A SE THRUST CHANGER PRESSURE DISTURBANCE STARTING 1.29 SECONDS RESULTED IN A MAJOR EMETHE EXPLOSION AT 1.0 SECONDS RESULTED IN A MAJOR EMETHE.	WENCLE EFFECT-LOSS OF NENCLE INTEGRITY. FAILURE OF THE BOOSTER PROPULSION SYSTEM RESULTED IN COMPLETE LOSS OF THE WENCLE BUE TO EXPLOSION, 80.29 SECONDS AFTER SUSTAINER PLIGHT LOCKIN. CORRECTIVE ACTION-SPECIAL PROPULSION SYSTEM LANDLINE INSTRUMENTATION HAS PROVIDED TO MOUITOR THE LAUNCHINGS OF PUTU ME WENICLES TO IMPURE ADEQUATE BAIA FOR SYSTEMS ANALYSIS. REDESIGHED BOOSTER INJECTORS MERE LATER INCORPORATED.	
379TEM 346-375TEM	VENICLE EFFECT-PREVATURE CORRECTIVE ACTION-THE PRI	PROPULSION-ME-A/B BOORTER	FAILINE MODE-ERRATIC OFERATION. BOOSTE HENDIAN. SYSTEM EFFECT-NOME. FIRING SUCCESSFLE.	VENICLE EFFECT-HOME. THE S. CORRECTIVE ACTION-WANDAM.	PROPULSION-IME-A/B BOOSTER	FAILURE MODE-FAIL TO OPE STSTEM EFFECT-OPERATION I	VENTCLE EFFECT-COUNTDONN A CONNECTIVE ACTION-UNKNOWN.	PROFULSION-M2-A/B BOCATER	FAILURE MODE-FAILED DURIL ER BUSTAINER FLIGHT LOCKIE CONDS THE PRESSURE ROSE & BYETEN EFFECT-ENTOSION. EUPLOSION AT S.P. BECORDS.	WENICLE EFFECT-LOSS OF W WENICLE DAE TO EMPLOSION CORRECTIVE ACTION-SPECIAL NE WENICLES TO THRUME ADM	

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9991 MAY 11	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	LEICH SYSTEM-AIRBON	¥	; ;	:		
8737EH 848-8737EH	TESTACHORT MANGER FAILED CONFORGAT MANG	DIF DATA BOUNCE PART NUMBER	WENTCLE DATE OF	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PRI VENDOR	PRI VENDOR HANK OTH VENDOR PART NO	
MOPULAI ON-ME-A/B BOOSTER	AZC-27-12173-401-00-31 THRUST CHAIGER	P.1941	510 000310	13 /EYR	YES ROCKETBYNE NO	TOYNE	***
FAILURE MODE-FAIL DURING	B OPERATION. COMMETTEN INSTABILITY IN THE B1 THRUST CHANGES.	IN THE BI THRUST ON	NGCR.				
SYSTEM EFFECT-EXPLOSION.	. LOW CHOCK EXPLOSION IN THE INJECTOR AREA. SYSTEM INTEGRITY MAS LOST.	R AREA. SYSTEM SHTE	E277 E88	1087.			
WENTELE EFFECT-LOSS OF 1	WENTELE EFFECT-LOSS OF WENTELE INTEGRITY. THRUST SECTION BESTROYED BY EXPLOSION AT 2.5 SECONDS AND WENTELE DESTROYE AT 5.2 SECONDS.	ATROYED BY EXPLOSIO	4 AT E.5 A	ECOMOS AN	D VOICUE	CESTROYE	
CONECTIVE ACTION-AS A I	CONECTIVE ACTION-AS A MESULT OF THIS AND OTHER CONDUSTION INSTABILITY PROSEEDS, BAPTLED INJECTORS NENE DEVELOPED A D PAT 1470 USE.	INSTABILITY PROBLEM	D, BAFFLED	INJECTOR	s NEME DE	WELOWED A	
PROPULSION-MAE-A/B BOOSTER	FTA 6560-F1-40E-00-4E B1 MAIN FUEL VALVE	ł	450 600EES	11 /ETA	TES ROCLETBYNE	TOTAL	2000
FAILURE MODE-INTERNAL LEAK. DAMKE INCURRED.	ear. Might leakage at B1 main fuel Valve caused a fire in the plane Bucket apter cutoff, mo	WLVE CAUBED A FIRE	7 X	AME BUCKE	T AFTER C	UTOFF. NO	
SYSTEM GFTECT-DEPLETION OF TEN CUTOFF. NO DAMAGE.	I OF LIGUID SAPPLY. SLIMIT LEARAGE AT BI MAIN FUEL VALVE CAUSED A FIRE IN THE PLANE BUCKET AF	DI MIN FUEL VALVE	CAUB (3)	FIRE IN	K PLAK	BUCKET AF	
VEHICLE EFFECT-NOIC.							
CORRECTIVE ACTION-REPLACE	ICE BI IMIN PLEL VALVE.						
PROPULSION-NAC-A/B BOOKTER	DA163/722-440-18-25 IGHITER LINK	CONTOBINE-FIB/DPL	81200 800E18	8-E/VIR	ž ā		****
FAILURE MODE-ELECTRICAL UITY CHECK. PROBLEM MAS	FAILURE MODE-ELECTRICAL OPEN. DURING COMIT BEQUENCE A FAIL INDICATION WAS RECEIVED DURING THE IGNITER LINAS CONTIN VITY CHECK. PROBLEM WAS DUE AN OPEN BE IGNITER LINK.	INDICATION WAS NEC	I MED DAN 13	36 74E 38	NITER LIN	A. CONT.	
SYSTEM CFFECT-OFDIATION STOPS PREMATURELY.	1 STOPS PREDATURELY.						
WONICLE EFFECT-COMIT &	WENTELE EFFECT-CONNIT BENENCE AND COUNTDOWN ABORTED.						
CORRECTIVE ACTION-REPLACED JUNITER.	CD 1942TDr.						
PROPULSION-MA2-A/B BOOS TER	F746561/60AF9-401-00-49 DETECTOR LINK	COLUMBOAN	440	13/EM -2.	12.0		
FAILURE MODE-FAIL DURING B BUT MEMAINED FUNED.	6 OPCRATION. ENGINE CUTOFF FROM IGNITION STAME LIMITER WHEN BE IGHITION DETECTOR LIMES BUTHE	TION STACE LINITED		H1104 06	TECTOR LI	# • • • • • • • • • • • • • • • • • • •	
STATES EPTECT-OPERATION	statem eptect-operation atops premiunely embing cutopy prom isuition atabe limiter.	M 1641TION STABE LE	11 TCA.				

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OH 1874 BOOKSA				VALVE.					DURING BE 1					IN REACHING TI			11 A CHAIMER 10	TES ROCKETOVIC NO	OF NIMUS ESO DE BE THEUSTCHANGE 409.	
PB I			ş 8	7				ž 8	CCE I VE				5 9	7887			2	<u> </u>	2 2 2	
017E 71ME DI			11/678	111				A-E-MTR	# .				13/ETR 0	5			10 NOT	81/8YC	7 70E 1	
VENICLE BITE DATE DATE DATE			420	UK AT THE B				60 6001 E5	INDICATION ECTOR.				440	MILLIBECON			TMAT 11 D	\$40 \$0010\$	INDICATES (IN FOUNCE A)	
DIF DATA BOURCE			6186	A ALIGHT FUEL LE				courtboak	IT SEQUENCE A FAIL DETECTOR LINE COM				COSCILE-S FACT	LVES WERE BOTH BO			LATION WAS SO SMALL	CAPTIVE	BIENT TEPERATURE A POSSIBLE 10K LEA NS ALSO KVIDENCED	
TEST/REPORT NUMBER FAILED COMPORENT NAME	H ABCRIED AND RESCHEDULED.		FTASS0/P1-401-00-42	EAK. FOOT TEST INVESTIGATION NEWSALED A SLIGHT FUEL LEAK AT THE BI WAIN FUEL VALVE.			CE BI FUEL VALVE.	DA157/A3-402-00-04 DETECTOR LIM: COMMECTOR	FAILUME MODE-FAIL TO OPERATE AT PRESCRIBED TIME-DURING COMMIT SEQUENCE A FAIL INDICATION WAS RECEIVED DURING BE 16M TITOW DETECTOR LINK CONTINUITY OPECK, PROBLEM DUE TO A LODGE DETECTOR LINK COMPECTOR.	STOPS PRESATURELY.	WENTELE EFFECT-CORNET SCALENCE AND COUNTDOWN ABOUTED.	CTOR REPLACED.	FTA6460/F5-4CO-01-44	CIFICATION. THE BI AND BE MAIN LOP VALVES WERE BOTH BO MILLISECONDS TOO FAST IN REACHING THE R RECEIVING THE OPENING CONTROL SIGNAL.			TICH TAKEN AB DEVIATION PROM SPECIFICATION WAS SO SMALL THAT IT DID NOT WARRANT A CHAMBE IN	AC60-0001/81-410-C6-34 LOR DORE GABRETS	FAILNME MODE-OUT OF EXPECTED TEST VALUE. BE SOMITER VALUE ANDIENT TEMPERATURE INDICATED A MINIMUM OF MINUS 290 DEG. F During the Docater Phanel-Post that investigation repealed a possible lok leak bounce at the Tho be thmusticament Somer lok done dolto mearesthe be somiter value. This leak was also evidenced during tests 407 and 409.	
SYSTEM SUB-SYSTEM	WHICLE EFFECT-COMIDOM	CORRECTIVE ACTION-NOME.	PROPILE SON-MAS-A/B SOORTER	FAILURE MODE-INTERNAL LE	STATEM EFFECT-HOME.	WATCLE EFFET-HOME.	CORRECTIVE ACTION-REPLACE BY PUEL	PROPULSION-NAE-A/B SCOSTER	FAILURE MODE-FAIL TO OPE	SYSTEM EFFECT-OFERATION	VEHICLE EFFECT-COMIT M	CORRECTIVE ACTION-CORRECTOR REPLACED.	MOPULSTON-M.R-A/B BOOSTEN	FAILURE MODE-OUT OF SPECIFICATION.	SYSTEM EPPECT-MOME.	VEHICLE EFFECT-HOME.	CORRECTIVE ACTION-NO ACT	PROPULSION-NAE-A/B SODSTER	FAILURE HODE-OUT OF ENPE P DURING THE BODGUEN PHA HUMEN LON BOME BOLTS HEAR	

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WINDOR MANE WENDOR PART NO		€CK OF 7HE BCL.	YES ROCKETOVNE	MOSFRON S75 PS	POGRILEVEL D				NUM OPENING BAT				ROCKETOYNE	ER STAGE RESUL					!
2 5 b		ANT C	F 6	1	<u> </u>			<u> </u>	THE CHANGE				2 €	18 7 A E					
11 ST T T 1 1 T 1 T 1 T 1 T 1 T 1 T 1 T		E-PENETR	14/ETR -3.1	Y AT -3.	1008 TER E			9-2/8VC 0.81	108. THE				34/8rc	94 34 E					
VEHICLE DATE DIF		AND A DY	#11# #11#	ABNORHALL USE USING	710M OF B			\$101 6 6	1.340 SECO				6180 6 6	STER PLOA					
DIF DATA COURCE PART WASER		: REPLACED		ECHELAED LATER. CA	IN NEDUC				Sas Than G					COLLANT WA					
DIF DATA SOUR		KETS NEW	7.26.7	PESSURES '	1 MEDIL TED			CAPTINE	2 X CD				CAPTIVE	CHAI G ER C					
TESTARFORT MUBER FAILED COMPOSENT MINE	CAATURE ENVIRONEUIT.	VEHICLE EFFECT-NOME. CORNECTIVE ACTION-THE NINE DOME TO IGNITER NOUNTING BOLT GABKETS WERE REPLACED AND A DVE-PENETRANT CHECK OF THE BOL GASKETS WAS SATISFACTORY.	AZC-E7-000/F4-401-00-E0 866 LOK REFERENCE REGULATOR	OPERATION. BGG LOK REFERENCE REGULATOR PRESSUREDECREASED ABNORMALLY AT -3.1 SECONDIFINON 975 PS OMERED TO REQUIRED LEVEL OFFITS PSIA 5.7 SECONDIS LATER. CAUSE UNGURAN.	IN TOO LOM. ABHORMAL RESULATOR BEHAVIOR RESULTED IN REDUCTION OF BOOSTER EMSINES FONEN LEVEL D. PIRST THREE SECONDS OF PLIENT.		ú	32-410-C7-24 81 MAIN LOK VALVE	PECIFICATION. THE B1 MAIN LOK YALVE OPDIED IN LESS THAN 0.340 SECONDS, THE MINIMUM OPENING SPE INE HAS LEDER THE MINIMUM SPECIFICATION.			O.	82-404-84 TretusT Cruze 8	FAILURE MODE-OUT OF SPECIFICATION. LACK OF EXTERNAL SOOSTER CHANGER COOLANT WATER FLOW DURING SUSTAINER STACE RESUL ED IN OVERPÉATING OF THE CHANGERS.			COMECTIVE ACTION-BOTH BOOMEN CHAMBERS REPLACED.		
878TEN 840-878TEN	STREET EFFECT-LOW TEMPERATURE ENVIRONMENT.	VENICLE EFFECT-MOME. CORRECTIVE ACTION-THE MINE T GASKETS MAS SATISFACTORY.	PROPULSION-1002-A/B BOOS TER	FAILURE MODE-ERRATIC OPERATI	SYSTEM EFFECT-OPERATION TOO URING HOLDBOOM AND THE FIRST	WENICLE EFFECT-HOME.	CORRECTIVE ACTION-NOIC.	PROPULSION-HAE-A/B BODS TER	FAILURE MODE-OUT OF SPECIFICATION. C. ALSO, THE CLOSING TIME NAS LADER	SYSTEM EFFECT-MONE.	WENICLE EFFECT-NOME.	CORRECTIVE ACTION-UNKNOWN.	PROPULSION-MAE-A/B BOOSTER	FAILURE MODE-OUT OF BPECIFIC	STORES CPECT-SOR.	MAICLE OFFICT-NOW.	CORRECTIVE ACTION-BOTH		

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DIFFICULTIES AEVIEW-PROPULSION SYSTEM-AIRBORNE

STSTEN SUB-STSTEN	TEST/REPORT MANGER PAILED CONFORCINT MANG	PART NUMBER	VENTCLE DATE DIF	11 PE 010	PRI VENDOR NAME.	
PROPULSION-NAZ-A/B BOOSTER	31-413-C7-00 81 LUBE OIL BENSE LINE	CAPTIVE	8.505.4 8.505.8	91/816	4£.	
PAILURE MODE-FAIL TO OPERATED AT PRESCRIBED OF PROSESS OF PROSESS	TIK.	SI WASCR & SCARING LUSC ONL MOZZUE FRESSURE DID HOT FIRE LECT. LING.	HOZZCE M	NESSURE G	ith and a south about a	
STRIEM EFFECT-HOE.						^-
WARCLE EFFECT-HOME.						
CORRECTIVE ACTION-PURGED LUBE OIL SYSTEM.	D LUBE OIL BYSTEM.					1
PROPULSION-WAZ-A/B BOOSTER	FTAR131/F3-40E-00-17 DETECTOR LIMES, CONNECTOR	1	170 990909	18/ETR -540	8 8	3 2 2
FAILURE MODE-PREMATURE	FAILUNE MODE-PREMATURE OPERATION. BI DETECTOR LINK PAMÉL LIGHTB MERE LOST BUE TO A LOOSE PLUS.	.IGHTB NENE LOST BUE	70 A LOOS	1 7 Å.		
SYSTEM EFFECT-INFROMEN DISCRETE SIGNALS.	DISCRETE SIGNALS.					
VEHICLE EFFECT-COUNTDOM	VEHICLE EFFECT-COUNTDOM DELAYED. 1E MINUTES HOLD.					
CORRECTIVE ACTION-RECONNECT	MECTED PLUG.					
PROPULSION-MAE-A/B BOOGTER	31-408-64-08 8 1-86 OIL DISCHARGE LINE	CAPTI VE	90 990904	81/8YC	žį. Š	3
FAILURE MODE-STRUCTURAL, WEAR H RED DURING POST TEST IMPRECTION.	FAILURE MOE-STRUCTURAL. VEAR MOLE REBULTED FROM INTERFERENCE MITM LON TANK PRESSURIZATION DUCT CLAMP BOLT. DISCOVE ED DURING POST TEST IMBPECTION.	DKE MITH LOX TANK PI	Essuntza T	TON DUCT	CLAIP BOLT. DISCOVE	
SYSTEM EFFE' NOPE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-AGJUS	CORRECTIVE ACTION-AGJUST CLAMP TO KEEP LINE ANAY FROM PRESSURIZATION DUCT. REPLACE LUBE OIL DISCHARGE LINE.	ISURIZATION DUCT. AEP	LACE LUBE	OIL BIR	HARGE LINE.	
PROPULSION-MAE-A/B SCOOTER	EM133E/PA-40E-00-10 BOXATER 1444TER FUEL FOPPET	716	100	14/ETR	YES ROCKETBYNE NO	
FAILURE MODE-STRUCTURAL T PELL OUT OF THE SE CHAI	FAILURE MODE-STRUCTURAL. DURING PLIGHT READINESS FIRING TEST THO FUEL POPPETS PELL OUT OF THE BE CHANGER. ONE POPPE T PELL OUT OF THE SI CHANGER BURING FORT TEST IMPRECTION.	187 THO FUEL POPPETS	עברר סחג י	70 THE BL	CHANGER. ONE POPPE	
STATEM EPTECT-MOME. FOR	STETCH CPTCCT-MOME. IGHITION STETCH PERPONED SATINFACTORILY, PROVIDING PROFER ISHITION STASE BURNING.	LV, PROVIDING PROFES	10m1 110m	97A86 BV	Anthe.	
WAICLE EFFECT-MOME. WE RET BROPOUT.	WOJELE EFFEET-MOME, WOJELE MESFONDED MORNALLY THROUGHOUT THE TLIBMY NEADINESS FIRING, WITHOUT EFFEET FROM THE POP ET BROFOUT.	THE PLIGHT HEADINES	e Finite.	THOM IN	EFFECT FROM THE POP	
					PA65 0030	

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBO

SYSTEM	TEST/REPORT HUBER	DIF DATA SOURCE	WENICLE SITE	- E	VENDOR NAME	
8UB-8Y87EM	PAILED COMPONENT NAME	PART NUMBER	DATE DIF TINE DIF	01F 0TH	VENDOR PART NO	·
CORRECTIVE ACTION-POPPETI	& REPLACED BEFORE PLICHT TEST.					210800
PROPULSION-NAE-A/B BOOKTER	11-413-06-09 BOOSTER LUSK OIL PURP	CAPTIVE	348/18 06068		YES ROCKETDYNE	98716
FAILURE MODE-FAIL TO OPERATE LLY BYPASSING THE PURP GEARS.	FAILUME MODE-FAIL TO OPERATE AT PRESCRIBED TIME, BI LUBE OIL PRESSURE RIBE MAS ABMORMALLY BLOM. LUBE OIL MAS PARTIA LY BYPASSIME THE PURP BEARS.	AL PRESSURE RESE WAS	ABMORNALLY BL	397 .K	OIL UMS PARTIA	
SYSTEM EFFECT-NOME.						
WENTCLE EFFECT-NOME.						
CORRECTIVE ACTION-PRESSU	CORRECTIVE ACTION-PRESSURIZE LUBE OIL TANK AT A SLOKER RATE.					
PROPIUSION-IME-A/B BOOSTER	EN1330/P4-401-00-10 IGHITER PUEL POPPET: BOODTEN-BI		10D 14/ETR 500001 0	Į.	YES ROCKETDYNE NO	******
FAILURE MODE-FAIL TO OPEI INC THE ENGINE OF LEMITER	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, BOCATER (BS) SCHITTR FUEL POPPETS FAILED TO OPERATE PROPERLY STARY ME THE EMCINE OF ICHITER FUEL.	BI) SCALTER FUEL ROP	PETS FAILED TO	OPERATE	PROPERLY STARY	
SYSTEM EFFECT-OPERATION	TOO LOW. BOOSTER ENGINE (BI) FAILED TO REACH PROPER JOHITTON DUE TO FUEL STARVATION	D TO REACH PROPER 16	NITION DUE TO	ruer sta	RVATION.	
VENICLE EFFECT-PREMATURE IMPROPER BOOGSTER IGHITION	VENICLE EFFECT-PREDATURE PROPULSION SHITDOM. THE PROPULSION SYSTEM SHUT DOWN AUTOMATICALLY AT 2.45 SECONDS DUE TO MPROPER BOOSTER IGNITION.	ON SYSTEM SHUT DOWN	AUTOMATICALLY	17 2.43	SECONDS DUE TO	
CORRECTIVE ACTION-BOOSTE	CORRECTIVE ACTION-BOOSTER FUEL IGNITER POPPETS REPLACED WITH B WEDIFICATION POPPETS TO IMPROVE IGNITION.	TH B MODIFICATION PO	PPETS TO IMPRO	Æ 16417		
PROPULSION-NAZ-A/B BOOSTER	AZC-27-977/74-401-00-10 NOPETIA/B1 1641TER FUEL	J E	100 14/ETR 590901		YES ROCKETDYNE NO	650260
FAILURE MODE-ERRATIC OF	FAILURE MODE-ERRATIC OPERATION. THE BI IGHITER PUEL POPPETS RESTRICTED PLON TO THE BI ENGINE.	B RESTRICTED FLOW TO	THE BI ENGINE			
SYSTEM EFFECT-OPERATION I	STOPS PREMATURELY. ENGINE CUTOPP OCCURRED DURING SCHITTON STACE BECAUSE OF INSUFFICIENT TON	CCURRED DURING 16HIT	ION STAGE BECA	1 20 381	NSUFFICIENT 160	
VEMICLE EFFECT-PREDUITURE	PROPULATOR CUTOFF. ENGINE CUTOFF WAS PRENATURE AND THE PLICHT READINESS FIRING	MAD PRENATURE AND TH	E PLIGHT READ!	ESS FIR	ING (PRF) 1E81	
COMECTIVE ACTION-THE POPPETS MEMEREPLACED AND A OPPETS MEMEREPLACED AND A OPPETS MEMERICALS.	COMECTIVE ACTION-THE POPPETS NEMERIPACED AND A SUBSEQUENT TEST ON 5 BEPTEMBER 1859 WAS SUCCESSFUL. IGHITER FUEL PPETS NEME LATIMATELY REMOVEDFROM ATLAS VENICLES.	I TEST ON 5 MEPTINGE	1959 MAI SUC	ELIPTE.	IGNITER PUEL P	
Propulation-MAZ-A/B Book TER	81-410-65-06 81 THRUST CHAISER	CAPTEVE	90 81/870	5 5 5	ROCKE TDYNE BOOSS-1-ROSO	·
CA FUEL BLOGOSH TESTS AECI	tailume mode-out of deteification. De ighiter fired momenta the ighition detector line did not detak. Deteial ighit Or fuel dececum tests revealed that the de igniter fuel flow has delow the minimum 1.8 lbs/sec. Flow.	R THE ESSETTION DETECTOR ON SALE BELCH THE NIM	TOR LINK DID M	27 BREAK IC. 7.04	. DPC(1AL 100)7	
					PA6C 0051	

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15 JUL 1986

DIFFICULTIES REVIEW-PROPULSION SYSTEM AIRBORNE

8781EW	TEST/REPORT MUSER	DIF DATA BOUNCE	VEHICLE 817E	3176	I VENDOR MANE	_
		THE MODEL				-
SYSTEM EFFECT-OFFRATION IR.	BYBTEM EFFECT-OMERATION BTOPB PREMATURELY. 16MITION BTAGE TINGN CUTOFF WHEN THE 16MITION DETECTOR LINK DID NOT BREA.	THEN CUTOFF WHEN TH	E 1681710	DETECTOR L	INE DID NOT BREA	
VEHICLE EFFECT-PREMIUNE	IE PROPULATON CUTOPP.					
CORRECTIVE ACTION-THRUST	P CHANGER HAS REPLACED.					
PROPULSION-NAE-A/B	31-409-63-09 81 THRUST CHANGER	CAPTIVE	90 90017	81/87C YES	YES ROCKETDYNE NO EGGUSS -ROSG	1
FAILURE MOE-OUT OF SPECI EN FLEL BLOWGOM TESTS ME!	FAILURE HODE-OUT OF SPECIFICATION. BY IGNITER FIRED MOMENTA THE IGNITION DETECTOR LINE DID NOT BREAK. SPECIAL 16HIT ER FUEL BLOMDOM TESTS REVEALED THAT BY IGNITER FUEL FLON WAS BELOW THE MINIMUM 1.5 LEV/SEC. FLOM. THIS MAS DISCOMES ED AFTER RUM 414.	1 THE IGNITION DETEC 18 BELOW THE MENIMEN	1.9 LINE 0	ID NOT BREA EC. FLOM. T	R. BPECIAL 16MIT HIS MAS DISCOVER	
SYSTEM EFFECT-OFERATION I	SYSTEM CFTECT-OFGRATION STOPS PREDATURELY. IGNITION STAGE TIMER CUTOFF WICH THE IGNITION DETECTOR LINE DID NOT BAEA	THER CUTOFF WEN TH	E 1541710	DETECTOR L	INK DID NOT BREA	
WENCLE EPPECT-PREMIUME PROPULSION CUTOFF.	E PROPULSION CUTOFF.					
CORRECTIVE ACTION-THRUST	CHANGER WAS REPLACED AFTER RUN 410.					
PROPULS104-M2-A/B B0031ER	BE THRUST CHANGER INJECTOR	CAPTIVE	\$0004£	0H 27872	YES ROCKETDYNE HO	054740
FAILURE MODE-FAIL DURING	FAILURE MODE-FAIL DURING OPERATION. FOUR BURN AREAS ON INJECTOR DISCONERED DURING FOST TEST INSPECTION.	CCTOR DISCONDADD DUR	1 160 201	EST IMSPECT	<u>5</u>	
BYSTEN EFFECT-NOME.						
WHICLE EFFECT-HOME.						
CORRECTIVE ACTION-REPLACE	CE DIGINE.					
PROPULSION-ME-A/B POCATER	DASA/BL-48N-06-06 BOOSTER CONTROL MEMATOR	COMPOSITE-PRO/DPL	990714	A-2/VTA YE	YES ROCKETOTHE HO	:
- FAILURE MODE-DRIFT-REGULL	FAILUME MODE-DRIFT-REGULATOR PRESSUME DRIFTED DOWN DURING THE COUNTDOMN. ALSO, A SPIKE WAS MOTED BURING MELLUM VENT	NE COUNTDOM. ALSO,	A WIRE .	NS NOTED DU	RING MELIUM VENT	
SYSTEM EFFECT-OFERATION	TOO LON BUE TO IMPROPER PRESEURE SUPPLY TO BODGTER ENGINE PREUNATIC STATEN.	FFLY TO BOORTER DIS	THE PRESE	TIC STATES.		
VOICLE EPPECT-DA. NAS AS	APORTED AND RESONEDIALED.					
COMECTIVE ACTION-UNENDA	ķ.					
					PA4E 0032	<u></u>

CHANGE AND COMMENTS

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STATICATION MENTIN-HARMANDOS SECTIO-LINES

	TO ADDIT SECTOR	COMES IN A 250 FAMIL BRANCE		MIN ME		r
	CA DE MARCINA	2	12.6	5	VC) BOCKTBAKE	1
TANK WEATH TO SEE	OFDERE AT PRESENTED THE, AS PUBL MACROS PARTS F MALES ACTUALLY.		7 OF T		ME BATTON CONTINUE BASERYY AT CONCUSTS ACT	
STATE STATE STATE BESTER STATE.	S STOKE WHILL WAS BUY COME.		F 968 17	3	where sections if organion we curingle. Paparing	
Sect pren-eng.						
COMECTIVE ACTION APPLACES	NO MO.					
PECPEL SPITE MAN ALVA	Mar essent taken m	ome.	8 1	M./BR	TO ROCKERPHE	-
Parate anti-statement	MA. NEE SPLAT COLDER VIEWS. SCHOOLERS BURGES FORT NOT INSPECTION.	TICH TON WITH CO	INSPECTIO	4		
arsale Geter-ade.	٠					
WARL BYECT-EDE.						
COMECTIVE ACTION ADMIN 1	AR MED.					
FICT 23 CH4.78 8CCS PZR	404 (3) 381 124008	Gernwe	8 8 9 8 9 8 9 8 9 8 9 9 9 9 9 9 9 9 9 9	4/3K	TES COCKETOTICE	•
FARINGE WOOK-FAIR TO	FASTUME WORE-FAIL TO OPERATE AT PRESCRIBED THE -64 LUME COL PESSOURE RISE WAS ARROND THE PARK COLL PESSOURE RISE WAS ARROND	N. PESSONE RISE VAL	311	j	MALLY SACIAL CIL WAS SLIBIUS AND	
ses to orten-eng.						
WONGE OFECT-EDE-R	WORLDE EFECT-HOME-HERLING THE LINET WAS EXTENDED.					
COMECTIVE ACTION-PIE	COMECTIVE ACTION-PRESENTED THE BOOSTER LINE OIL TANK AT BLOKER BATE.	ROCE BATE.				
FECT STOR - FIG A.B A.B A.B A.B B.B	81-480-46-40 B4 Nation? Changes Year	CAPTIVE	2 × 0 × 0	11 / H	TES ROCKETOVICE NO	I I
Parisme mose-amounted	Patunic mosc-binectional. Fine thoca caacada and herda thoc heranalonal blocompada saring foot test indefection.	CEPARATIONS, PIECON		8	EST THOPPECTION.	
STREET COTEXT-HOR.						
SHOOL OFFICT-ANG.						
COMMENTAL ACTION-ADMIN TO	AIR VOCA.					
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DIFFICATION REVIEW-MOPASION SYSTEM-AIRBORNE

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WHICLE SITE PRI VENDOR MAKE DATE DIF THE BIF OTH VENDOR PART NO	TES POCKETOVIE PP			YES ROCKETOTHE 69	AADUAL DETE	: THEUST SEC		TAL WALVES F	YES ROCKETDINE 09	. DE VALUE N			VES ROCKETOVNE	.720.			PASE BOSA
- 4 - 4 - 4 - 4	VE 80			5 S	4	# #		CB 1 TE	YES BO	Q 5	•		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7607			
114E DIT	91 / BYC	BPECTION.		32/8YC 39.44	RESULTING	DAVED FIRE		OPERATING	81/87C 9.	AND MININ	£		91/8YC	PO87 1E87			
WOIGE ONTE DIF	\$6 . \$90.70 2	MT 7EST 11		20 2008:	. UNSTABLE	OF AN COM	٠	KAIN OF	909046	TO BLOW	5		9 80 98 7 X	entano de			
DIF BATA BOUNCE PART MORECE	CAPTIWE	REVEALED DURING PO		CAPTIVE	TION PROCESS BECAME	CONDS AS A RESULT	TAND NERE DESTROYED	V. PROVIDE RELIABLE TALB.	CAPTIVE	L PRESSUR RISE WS		FOR PRESSURE RISE.	CAPTIVE	TUBE RUPTURED. POU			
TEST/REPORT HANGE FAILED COMPONENT HANG	N606-62-09 DE THEMST CHANGER TORE	ONE CHACKED THEE IN BE CHANGER WAS REVEALED DURING FOOT TEST IMPRECTION.	,	AZC-E7-072/32-414-C9-CE BE THEWAT CHANGER	FAILUNE MODE-FAIL DURING OPERATION-BY THRUST CHANGER CORNISTION PROCESS BECAME UNSTABLE RESULTING IN A GAADUAL DETE Itoration of the injector plate at 38.44 Seconds.	SYSTEM EFFECT-EMPLOSION-OBSERVER CURSFF OCCURRED AT 42.06 SECONDS AS A NESULT OF AN OBSERVED FIRE IN THE THRUST SEC Tow. This was followed by An EMPLOSICH.	WHICLE EFFECT-LOSS OF WHICLE INTEGRITY, THE VEHICLE AND STAND WENE DESTROYED.	COMECTIVE ACTION-MODIFY FINEX SYSTEM FOR METITIN EFFECTIVITY. PROVIDE RELIABLE NEAMS OF OPERATING CRITICAL VALWES F ON THE BLOCKWOUSE, USE HOME HELIABLE RCC ACCELEROMETER CRYSTALS.	10-403-42-00	date at mescribed tike- bi lube ocl prediume rise was two blow and hinimum redline value h	STATES EFFECT-MOME. Months of states among denoted along contents, contents content today time (a) personel ton (a) of also the times.	COMECTIVE ACTION-MEDIJNE WAS HODIFIED TO EXTEND TIME LIMIT FOR PRESSURE RIDE.	64-401-41-09 64 Trevest Owings Tibes	IINS OPERATICH-ONE BI THRUST CHANGER TUBE RUPTURED. FOUND DURING POST TEST INSPECTION.			
8757Cn 848-8737Cn	PROPILATOR-MANAGE	FAILURE MODE-ETHUCTURMS. ONE STRING EFFECT-MODE.	WOICLE DTECT-MOME.	PROPULSION-NAC-A/B BODB TZR	FAILURE MODE-FAIL BURING OFCRATION-BY THRUST GNA RICHAR AND SEA SECONDS.	SYSTEM EFFECT-ENPLOSION-OBSET TION. THIS HAS FOLLOWED BY AN	WHILE STECT-COSS OF N	CORRECTIVE ACTION HEIDIPT FIRE	PROPULSTON-NAZ-A/B GOOSTD2	FAILURE MODE-FAIL TO OPTIANTE OF ACHIEVED.	STATE CYECT-MONE.	CORECTIVE ACTION ACDULM	PROPILES CON-MAG-A/B BOODS TER	PAILURE MODE-PAILURE DABING	GTSTEN EFFECT-HOME.	WOICE CYET-HOM.	

CONTAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION STREET-AIRDORNE

THE COLUMN OF THE CALL WAS CALLY AND CALLY AND THE ALLOW CALLY AND THE ALLOW PRESSURE NIME AND CALLY AND THE ALLOW CALLY AND T	8181EN 840-8181EN	TEST/REPORT NUMBER	DIF DATA SOUNCE	VEHICLE DATE DIF	SITE PRE		VENDOR HARE	
IN CHEATE AT PREDICTED THE, BY LURE OIL PRESSURE RISE WAS ABROMALLY SLOW, SLOW PRESSURE SINE MASSIVER. MANY COLL PAGE MANY C	CORRECTIVE ACTION-NEW	139.						617.00
THE OFFICE AT PRECEDENCE TIME, BY LIME OIL PRESSURE RIME HAS ASMORMALLY SLOW. SLOW PRESSURE RIME SHE	PROPIL STON-TAIR-A/B BOOKTER	11-40E-41-09	CAPTINE	1	17876	1 0	NOCK ETDYNE	•
THE SECOND TO LINE OIL THE AT A BLOCK PATE. 1. DEBING OFFICIATION, POST NUM INSPECTION REVELED THE RUPTURES IN THE BY AND BE CAMBERS. 2. CONTROL THE SECOND THE COLF WERE CAPTIVE ED REPORT TO OPERATION. POST NUM INSPECTION REVELED THE RUPTURES IN THE BY AND BE CAMBERS. 2. CONTROL THE CALF WE CALF WE CALFINE ED RESEARCH TO CAPTIVE SHOULD THE SECOND THE CALF RECEDING THE CALF WERE CALF WAS SHOULD THE LINE OF THE LINE	FALLURE MODE-PAIL TO C	OFENTE AT MEDICAIDED THE. BY LUDE OF OF OIL PINE.	NL PRESDURE R18E 'AS	ABNORMALLY	ro.	2	MESSURE RISE	
SE-GONDATION FOOT THE COL TANK AT A M.CACR PATE. SE-GONDATION FOOT THE INSPECTION NEVELED THE NATIONALE IN THE B1 AND BE CAMBERS. SHELL DARING OFDATION FOOT THE INSPECTION NEVELED THE NATIONALE IN THE B1 AND BE CAMBERS. SHELL DARING OFDATION FOOT THE INSPECTION NEVELED THE NATIONALE IN THE B1 AND BE CAMBERS. SHELL CONTROL OF THE B1 AND BE CAMBERS. L. TO OFFERTE AT PRESCRIBED THE LUNE OIL PRESSURE FAILED TO RIBE ABOVE THE LONGON PROJECT THE NOTICE THAT IS CAMBERS. STATION STOPS PRESWINKELT. CASENVES CUTOFT. STATION STOPS PRESWINKELT. CASENVES CUTOFT. STATION STOPS PRESWINKELT. CASENVES CUTOFT. FIRSTSTATES THE COLL TANK AT M.CACR BATE. FIRSTSTATES THE COLL TANK AT M.CACR BATE. FIRSTSTATION STOPS STATIONAL MATER BATES WITH LIRE DISPETABLE WATER DUTING LIRE LAND CONTROL OF WITH LIRE DISPETABLE WATER. FIRSTSTATES FLUES GONTTON STOPS PRESWITTER PLUES SOUTH STATION STOPS STATION STATION STATION WITH LIRE DISPETABLE WATER DATES AND STATION STATIO	STSTEN EFFECT-MONE.			·				
THE STATE OF THE SOUTH LINE OIL THAN AT A RICHER PATE. SE-ADD-64-OR THE THE CAMPER THEST IL DARING OFDATION. FOOT RIGH HISPECTION NEVELED THE RUPTHES IN THE B1 AND BE CAMBERS. DEC. COE. SE-ADD-64-OR THE HISPECTION NEVELED THE RUPTHES IN THE B1 AND BE CAMBERS. DEC. COE. SE-ADD-64-OR THE B1 AND SECTION NEVELED THE RUPTHES IN THE B1 AND BE CAMBERS. DEC. COE. SE-ADD-64-OR THE B1 AND SECTION NEVELED TO RIE ABONE THE LOWER MEDLINE LIMIT. CHASTACLOR THEST CHASTACLOR THE AT PREACHED THE. LUNE OIL PRESSURE FAILED TO RIE ABONE THE LOWER MEDLINE LIMIT. PREASURE AT PREACHED THE. LUNE OIL PRESSURE FAILED TO RIE ABONE THE LOWER MEDLINE LIMIT. PREASURE LUNE OIL THE AT BLOCKT BATE. THAMSTORM SECTION AND ADDRESS CUT OFT WHEN MEDLINE WAS VICLATED. PREASURE LUNE OIL THE AT BLOCKT BATE. THAMSTORM SECTION AND ADDRESS AND SECTION OF WHEN SPRAND WITH LIPE DISPERSAL WATER DUMING LIMIT LANGESTER AND SECTION AND SPREAD WITH LIPE DISPERSAL WATER. PREASURE COMPONENT SECTION OF SPRAND WITH LIPE DISPERSAL WATER.	VOICE DIECT-HOE.							
THE SECRETARY CONSIDER THE STATE TO SECRETARY STATE ST	CORRECTIVE ACTION-PRES	SHARIZE THE BOOSTER LUBE OIL TANK AT	A BLOMER RATE.	į	1	1		
TO OPERATE LUBE OF THAT THE PROCESS THE BY AND BE COUNTY OF THE BY AND BE COUNTY OF THAT THE BY AND BE COUNTY OF THAT THE BY AND BE COUNTY OF THAT THE BY AND BY AN	MOPULSION-ME-AA	THE ST. CHARGE TUBES	CAPTIVE	2	£/87C	ž Š	NOCKE TO WE	65086
DOC. 1 S2-407-41-02 1 S2-407-41-02 1 DO DEFAIL AT PRESCRIBED THE LUBE OIL PRESSURE FAILED TO RIBE ABOVE THE LORER REDLINE LIMIT. 1 TO OFERALE AT PRESCRIBED THE. LUBE OIL PRESSURE FAILED TO RIBE ABOVE THE LORER REDLINE LIMIT. 1 FOR ATTENDAM ABOUTD AND RESORDILED, CROSENVER CUT OFF WHEN REDLINE WAS VICLATED. 1 TO OFERALE AT PRESCRIBED THE. LUBE OIL PRESSURE FAILED TO RIBE ABOVE THE LORER REDLINE LIMIT. 1 TO OFERALE AT PRESCRIBED THE. LUBE OIL PRESSURE FAILED TO RIBE ABOVE THE LORER REDLINE LIMIT. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUT OFF WHEN REDLINE WAS VICLATED. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUT OFF WHEN REDLINE WAS PROBLED. 1 TO OFERALE AT PRESCRIBED THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE NOTION TO RIBE ABOVE THE DISPERSAL WATER DURING LIMIT. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFERALE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE DISPERSAL WATER DURING LINE COUNTRY. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESSURE CUTOFF. 1 TO OFFICE AT PRESCRIBED. THE OIL PRESCRIPTOR THE DISPERSAL WATER DURING LINE COUNTRY. 1 TO OFFICE AT PRESCRIPTOR CUTOFF. 1 TO OFFICE AT PRESCR	FATLURE MODE-FATL DURI	ING OPERATION. POST RUN INSPECTION A	WEALED TUBE AUPTURES	. 14 16 81	A 64	OWN	33.	
DEC. SE-407-41-02 BOOSTER LUSE OIL FUNE CAPTIVE BOOSTER LUSE OIL FUNE CAPTIVE SECAND L TO OFERATE AT PREACRIBED TIME. LUSE OIL PRESSURE FAILED TO RIBE ABOVE THE LOADS REDLINE LIMIT. CHATTON STOPS PREMIURELY. CASENVER CUT OFT WHEN REDLINE WAS VIOLATED. PREMIURITORS AGORTED AND RESONDALED. CASENVER CUT OFT WHEN REDLINE WAS VIOLATED. PREMIURITORS AGORTED AND RESONDALED. CASENVER CUT OFT WHEN REDLINE WAS VIOLATED. FILATSTYPS-AGE-CO-GS COUNTDONN SOOSTER SAULTER PLUSS S	3737Dr SFECT-104.							
PREPLACED TUBES. SE-407-A1-GE BOOSTER LUBE OIL FUNE CAPTIVE ED 38/30 AE/30'C YES ROCKETDYNE BOOSTER LUBE OIL FUNE COL PRESSURE FAILED TO RISE ABOVE THE LONER REDLINE LIMIT. ETATION STOPS PREMIUMELY. CASENYER CUTOFF. SCHATTONS STOPS PREMIUME CONTROLLED STOPS STO	WONIAL BITECT-HOLE.							·
SE-407-A1-DE SOUSTER LUBE OIL FUESSURE FAILED TO RIBE ABOVE THE LOAD'S REDLINE LIMIT. CRATICH STOPS PREMATURELY. CASENVER CUTOFF. CRATICH STOPS PREMATURELY. CASENVER CUTOFF WHEN REDLINE WAS VICLATED. FTARTSTYPS-402-03-03 COUNTDOMN 3D 13/CTM NO ROCKETOTHE BOOSTER ISMLTS PLUES SOOSTER ISMLTS PLUES STARTSTYPS-402-03-03-03-03-03-03-03-03-03-03-03-03-03-	CORRECTIVE ACTON-REPL							
FAILURE HODE-FAIL TO OPERATE AT PREACHIBED TINE, LUBE OIL PRESSURE FAILED TO RISE ABONE THE LOAGH REDLINE LINIT. STATEM EFFECT-OPERATION STOPS PREMATURELY: CASENVER CUTOFF. WENICLE EFFECT-OCCAMIDON ABORTED AND RESONDULED. CASENVER CUTOFF WHEN REDLINE WAS VICLATED. CORNECTIVE ACTION-PRESSURIE LUBE OIL TANK AT SLOACH RAIT. FOUNDALSICH-IMA-A-B FILATST/PS-402-00-03 COUNTDONN SO 13-/ETH HO ROCKETOTHE BOOSTER SAUTER PLUS COUNTDONN STATE PLUS STATEMENT SHIPS NEWE STEIN SPRAYED BY LUB DISPERSAL WHEN LINE L STATEM COPPECT-CONTROLN STATEMENT CHARGERS AND SENTITERS WERE SPRAYED WITH LUB DISPERSAL WHEN. WENICLE OFFECT-COMPROUND BELAYED. 15 WENEFIT MELLS.	PROPULSTON-HAZ-A/B SOOSTER	25-407-41-02 52-407-41-02	CAPTIVE	0430	£/81C	47.0	OCKETO ME	350060
WENTELE EFFECT-COUNTDOOR ABORDED AND RESONDED. CORRECT OFF WHEN REDISHE WAS VIOLATED. CORRECTIVE ACTION-PRESSURIZE LUBE ONL TANK AT SLOWER BATE. CORRECTIVE ACTION-PRESSURIZE LUBE ONL TANK AT SLOWER RATE. PROPALSICH-MAE-A-8 FTAATST/P3-402-00-03 COUNTDOOR 3D 13/ETR NO ROCKETDINE BOOSTER BOOSTER SOUTH SALES FLUSS IN SCOSTER CANNERS MERK BEINS SPRAYED BY LINE DISPERSAL WATER DURING LINE L ANSWERS BATE TO SLOWENS 15NO. STATEL STREET-COUNTDOOR DELAYED. 15 MINUTE NELS. WENIGLE STREET-COUNTDOOR DELAYED. 15 MINUTE NELS.	FAILURE MODE-FAIL TO C	OPERATE AT PRESCRIBED TIME. LUBE OIL	PRESSURE FAILED TO R	INE ABOVE 1	NE LONE	ą .	.1NE LINIT.	
WENTELE EFFECT-COMPTIONS AND RESOURCES. GUISENER CUT OFF WENT REDUTE WAS VIOLATED. CORRECTIVE ACTION-PRESSURITE LUBE UIL TANK AT SLONER RATE. PROPULSICH-ING-A-0 FTA4757-79-402-00-03 COUNTDOM SD 13/ETH NO ROCKETDINE BOOMERS. PAILURE MODE-CONTAMINATION-IGNITOR FLUES IN SCORTER CUMMERS MERE BEING SPRAYED BY LUE DISPERSAL WATER DURING LINE L. STRATE COUNTDOM SELANTS. STRING EFFECT-COMPANIANTION-BOOMER CHARGES AND IGNITIZES MERE SPRAYED WITH LINE DISPERSAL WATER. WENTELE GFFECT-COMPANIANTION-BOOMER MELS.	SYSTEM EFFECT-OPERATIO	on stops prepaturely. Casenver cutoff	.•				٠	
COORECTIVE ACTION-FRESSURIE LUBE UNL TANK AT SLOWER RATE. PROFALSION-IMAGE AND 13/ETR NO ROCKETDINE SPOATS -400 NO STATES FLUES CONTIDONS SPOATS -400 NO ROCKETDINE SOCIETA PAILUME NODE-CONTAMINATION-IGNITOR PLUES IN SCORTER CHANGERS NERE BEING SPRAYED BY LIVE DISPERSAL WATER DURING LIVE L. GABINE BLE TO BLOMENS 15/MD. STREET COPECT-CONTAMINATION-SOCRETE CHANGERS AND SHITTERS NERE SPRAYED WITH LIVE DISPERSAL WATER. WHICLE COPECT-COMPROMS BELAYED: 18 NEWRYE NEED.	WONTELE EFFECT-COUNTRY	da aborted air resonediced. Giservei	CUT OFF WICH REDUSIN	WE VIOLA	ē			
PROPERTY SOUTH THE PROPERTY OF THE SOUTH S	CORRECTIVE ACTION-FIRE	ISURIZE LUBE OIL TANK AT BLOKEN RATE.						
PAILUNE MODE-CONTAMINATION-IGNITOR PLUKS IN SCORTER CHANGES MERE BEING SPRAYED BY LINE DISPERSAL WATER DURING LINE L CASING DAE TO BLOMENS 1580. STRIED CYPECT-CONTAMINATION-BOORTER CHANGERS AND IGNITIES MERE SPRAYED WITH LINE DISPERSAL WATER. WONIGLE CYPECT-CONSTROAM BELAYED. 18 MINUTE MCLS.	PROPULSI CH-MAE-A/B BOORTER	F144737773-402-00-03 B008TER 154LTER PLUES	COUNTDOM	7	3/ETR 420C		HOCKE TO THE	
	PAILURE HODE-CONTAMINA CABING BLE TO BLOMING IS	ITION-IGNITOR PLUGE IN BOOKIDE CHANNING.	RO NERE DEING OPRAYE		PPCR3AL	¥	DUATE LIE L	
	STATES COPECT-CONTAINS	MTICH-BOOTER CHANGERS AND INITERS	NERE SPRATED WITH LIN	DISPERSAL	M TEA.			
100 3772	WHICH GPTCT-COATP	MH DELATED. 18 MEMUTE MC.B.					,	
							PA6E 0019	·

GENERAL DYNAMICS CONVAIN DIVIDION

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9941 WY 81	DIPPICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	A.SION SYSTEM-AIRBOR	¥			
87878 848-873784	TESTAICPORT MAREN FAILED COMPOSENT NAME	DIF DATA BOUNCE PART MUNDER	VEHICLE DATE DIF	110E 01F	WENICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
CORRECTIVE ACTION- 454LT	HTER CONNECTOR PLUES CONERED MITH VINYE TAPE TO PROTECT ISMITER DETECTOR CIRCUITAY.	IL TAPE TO PROTECT !	CHITER DET	ECTOR CIRC	UITRY.	•• 771.
PROPULSI CH- MAE-A/B BOOB TER	80-402-41-02 800-703 LIME OIL 873703 PUMP	CAPTIVE	916066	82/87C Y	YES ROCKETOYNE	£01 6
FAILURE MODE-FAIL TO OPERA MORNAL TIME 13 1.5 BECOMDS.	OPERATE AT PRESCRIBED TIME. LUBE OIL PRESSURE REQUIRED 4.1 SECONDS TO ATTAIN OPERATING LEVEL. Combs.	MESSURE RESULRED 4.	1 150008	TO ATTAIN	OPENATING LEVEL.	
STATEM EFFECT-HOME.	•					
Wollas Gfet-106.						
CORRECTIVE ACTION PRESS	CORRECTIVE ACTION-PRESSURIZE LUBE OIL TANK BLOMER.					
PROFULSION-INC-A/A	22-402-41-02 DE TURBO PURP ACCESSORY PAD BEAL	CAPTIVE	20 940310	86/8VC YE	₩.	150666
FAILURE MODE-LEAK, EXTE	FAILUME MODE-LEAK, EXTERMAL, MORY TEST INSPECTION MEVEALED LUBE OIL LEARAGE.	UBE OIL LEARAGE.				
STSTEN EFFECT-NO.E.						
WONCLE OFFICE-HOME.						
COMPLETIVE ACTION MENLACE	ICE SCAL.					
PRITESTON-WE-A/9 BOOSTER	14-434-82-90 81 MAIN FUEL VALVE	CAPTURE	900066	1-4/EDAA YE	YES ROCKETOWE NO	35 67 61
FAILURE MODE-LEAK-INTER	FAILURE MODE-LEAK-INTERMIL. POST TEST INDRECTION REVEALED A LEAK IN THE BY THE VALVE. THE CAUSE IS UNKNOWN.	A LEAS IN THE BY THE	T VALVE. 1	HE CAUSE I	DENOM.	
SYSTEM EFFECT-MOME. OPE	OPERATION WAS SATT "ACTORY THROUGHOUT THE TEST.	NE TEST.				
Wolae ofter-was.						
CONTECTIVE ACTION-THE VALVE WAS REPLACED.	TALVE WAS REPLACED.					
Propasion-Ma-4/8 Booster	81-409-A2-09 THEVAT CHANGER INJECTOR	CAPTIVE	90 990207	81/8YC Y 0.74 %	YES ROCKETBYNE	
FAILURE MODE-CONTANTINATI	FAILURE MODE-CONTAMINATION. ORCILLATIONS OF 120 CPE MEME NOTED ON ME PUE, INJECTION FRESSURE DATA. THIS BUZZING IS TRISUATED TO RESIDUAL PLUBMING PLUID MEXING META LITHERS ORIGINES.	OTED ON ME PUEL TIME ALORIDE.	CTION FACE	SURE DATA.	7418 BUZZ186 18	
Brandi GPECT-CHAATIC G	OTESA TICH.					
WHICH EFFET-HOM.						

GENERAL BYNAMICS CONVAIR BIVISION

13 Jun 1966

DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

CORPECTIVE ACTION-WOME.	FAILED COMPOSENT NAME PART MUMBER		DATE DIF TIME DIF		
PROFILE TALE AND BE THRUST CHANGES TARE	CAPTENE	¥	BYCANOHE	SYCAMONE YES ROCKETOYNE NO	***
PAILURE HODE-STRUCTURAL. OR SPLIT COOLINT TUBE.	ONE SPLIT COOLENT TUBE. BISCONERED DURING FOST TEST IMPRECTION.	EST IMBPECTIO	i		
ATATEN EFFECT-MOME.					
WAICLE GFTET-HOME.					
CONTECTIVE ACTION-REPLACE THATBE CHARGE.					
PROPULSI CH-104-4/9 974-3-46-37	PLICAT	720 640330	ABRESS-S YES NAA SECO YES	YES MAA	***
FAILURE MODE-SUSTAINER LOK REG REFERENCE, PRESBURE INDICATED AN ABNORMAL TRANSIENT AT BECO AND A DECAY DURING THE VE BRIER SOLO PHASE. INSUFFICIENT DATA PRECLUDES REGOLUTION AS TO EXACT FAILURE HONE AND CAUSE.	WE INDICATED AN ABNORMAL TO ACCUTED A TO EXACT FAILU	RANSIENT AT B	ECO AND A DI AUSE.	ECAY DURING THE 1	
STREET EFFECT-MORE.					
IDATOLE DIFFECT-MOME.					
CORECTIVE ACTION-NOW PLANSED.					
PROPULSION-MAZ-A/8 574-3-08-19 84574 [MEX REGULATOR-6A8	P.I.Oct	1130 96	ABRE36-2	YES NAA NO	2000
FAILURE MODE-SUSTAINER LOX REG REFERENCE PRESSURE WAS SLOW TO RECONER FROM THE ENGINE START TRANSIENT. RECONERY TIN E MAS 1.0 SECONDS INSTEAD OF 0.4 SECONDS.	RE VAS SLOW TO RECOVER FRO	N THE ENGINE	START TRANS	IENT. RECOVERY TI	
SYSTEM EFFECT-MOME.					
WENTEL EFFECT-40ME.					
CORRECTIVE ACTION-NOWE-THIS PROBLEM IS NOT CONSIDERED CRITICAL OR IN NEED OF CORRECTIVE ACTION.	IDENCE CRITICAL OR IN HEED	OF CORRECTIV	E ACTION.		
PROPULETON-1M.Z-A.75 RE-480-02-65 BUCTATINER LOR RESULATOR	COSTOS TE-PRD/DIF.	70F. 850 851E10	Be ruth	VES ROCKETBYNE ND	
PAILUNE MODE-OUT OF EXPECTED TEST VALUE. THE SUNTAINER LOK REGHLATOR REPERENCE PRESSURE UNS APPROXIMATELY 18 PSI LO Wer than the bet level. Althounn reghlator output pressures are normally temperature and pressure scholling, It was Pelt that a 18 psi dipporatial uns not acceptable.	STAINER LON REGULATOR REPE T PRESSURES ARE WORMLLY TI LE.	RCHCE PRESBUR EMPERATURE AN	E WE APPRO	KIMTELY 18 PSI 1 DENSITIVE, IT WA	•
avantia covect-mone.					
				PART 005	

SENERAL DYNANICE CONVAIR DIVIBION

15 Jun 1964

3737EW 818-3737EW	TEST/REPORT NUMBER PAILED CONFORMY MANE	DIF DATA SOURCE PART HUBER	VENICLE SITE PRI	2 6	VENDOR NAME VENDOR PART NO	
WHICLE EFFECT-HOME.]		1600
CORECTIVE ACTION-ING RESU	CORRECTIVE ACTION-THE REGULATOR WAS CHANGED PRIOR TO PLIGHT	į				
PROPULSION-MAE-A/B GG	GOC-APZ65-007-E3-401-00-17E PROFELLANT UTILIZATION VALVE	71847	1720 8-3747R 8501E1 E01.60	ž Š		
FAILURE MODE-OUT OF TOLERAL ONAMES MERE MADE. THIS MAI	FAILURE HODE-OUT OF TOLERANCE. PU WALVE (FUEL VALVE) VS. HIXTURE RATIO WAS NOT RE-CALIBRATED AFTER EMCINE COMPOMENT CHAMES WERE MADE. THIS WAS A FINED PU WALVE PLIGHT. THE ERRONEOUS PU VALVE FINED POSITION RESULTED IN ENCESSIVE FU I. PLOM.	IXTURE RATIO MAS NOT RRONEGUS PU VALVE FI	RE-CALIBRATED AV NED POBITION REBY	75 E7 E	CINE CONPONENT N ENCESSIVE FU	
SYSTEM EFFECT-DEPLETION OF F SUSTAINER THRUST CHANGER I WENTING TO TAME-FED OPERATION MEDIATURE MENHICH SHUTDOSM.	SYSTEM EFFECT-DEPLETION OF LIGHTD SUPPLY-PRODUCTE FUEL DEPLETION OF HAIN PROPELLANT RESULTING IN FUEL STARMATION O F SUSTAINER THRUST CHANDER AND EAS EEN, MITH PRODABLE RUPTURE OF FUEL BOOSTRAP LINE PREVENTING GAS GENERATOR FROM RE WERTING TO TANK-FED OPERATION ALLOWING FUEL FROM ENGINE TANK TO BE EXAUSTED OUT OF RUPTURED LINE, THIS RESULTED IN P	PLETION OF HAIN PROP RE OF FULL BOOSTAAP R TO BE EXAUSTED OUT	ELLANT RESULTING LINE PREVENTING OF RUPTURED LING	12 FUE 46 GEN 17 18 E	L STARVATION O ERATOR FROM RE RESULTED IN P	
WENTELE EFFECT-FICHELMS FROMULSION SHUTDONN, SU NA PREMATURELY 7.32 SEC AFTER SUSTAINER SHUTDONN,	FORGSTON SMITDON. BUSTAINER ST TER SMEISLER SMITDONS.	EUSTAINER SMUTDOWN 1.35 SEC. PRIOR TO COMMUND. WERNIER EMEINES SMUTDO PRI	OR TO COMMIND. W	NA CA	DETIKE SHUTDO	
CORRECTIVE ACTION-6D/C TO I) INSURE CALT CURRENT VALIDATED DATA IS USED FOR P.V. VALVE SETTING CALCULATIONS ON FUTURE NATION ADDED TO PERMIT POST PLIGHT DETERMINATION OF PROFELLANT USAGE FOR COMPARISON WITH PR	TA 15 USED FOR P.U.	VALVE SETTING CAI OPELLANT USAGE PO	CULATI CO #	ONS ON FUTURE ARIBON MITH PR	<u>.</u>
PROPULSTON-MAZ-A/B GD BUSTATNER DR	GO/CZZNGA-025-3A10ZE-/LA-TNO-01-71 COMPOSITE-FRO/DPL 02 DUCT, TRANSDUCER BOSS 07-E2205-621	1 COPPOSITE-FNO/DPL 07-E3209-021	7102 E-4 640921	55 8 52	2	
FAILURE MODE-STRUCTURAL, PO ENTATION BOSS ON THE Y-BUET.	POST DPL INSPECTION BHOWED A CRACK AT THE PLOSIT (LOR BREAKAWAY VALVE TEMPERATURE) INSTRUM. 17.	a at the pidelt (loe	BREAKAWAY WALVE	TEATE	ATURE) INSTRUM	
CORRECTIVE ACTION-THE DUCT	MERGINED METALEMENT DUE TO MOSTBEL LOSS OF BINGLONAL INTENTITY DURING FLIGHT. I DAS MEPLICED.	HELL LOS OF BIRKEY	MAL INICALLIT DU	1	į	
PROPULSION-IM2-A/B GD SUSTAINER 01	40/C22044-C28-DA1018-/L4-TNO-O2-71 COMPCATTE-F1D/DPL 01 ouct, Transoucer 8088 7-E3E08-621	1 COMPOSITE-PROVORE 7-ENEOS-021	7101 2-4	ă đ	YES 4040240	8 / 8
FAILURE MODE-STRUCTURAL. IN	INSPECTION OF LOR Y DUCT REVEALED A CRACK IN THE LOR BREAK AWAY VALVE TENPERATURE TRANSDUC TO THE BOSS AT DUCT MELD.	A CRACK IN THE LOP	PREAK ALAY VALVE	TENPER	ATURE TRANSDUC	
STATEM EFFECT-MOME.						
VENICLE EFFECT-POSSIBLE LOSS OF VE CONSCIENT ACTION-SEPLACED V DUCT.	WAICLE EFFECT-FORBIBLE LORS OF WAICLE STRUCTURAL INTERNITY. HEY CORRECTIVE ACTION-REPLACED Y BUCT. Corrective action-adplaced y buct.	TY.KEY CORRECTIVE AC	TION-REPLACED Y I	, ta		
						
					PAME DOSO	_

GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1966

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DIFFICUATION REVIEW-PROPULATION AVAIGN-AIRBORNE

statta se-avatta	TEST/REPORT MAGER FAILED COMPOSENT MASE	DIF DATA BOUNCE	VEHICLE DATE DIF	VEHICLE SITE PI	PRI VENDOR NAME OTH VENDOR PART NO	
PROPULSION-NA2-A/B SUBTAINER	60a /Br Ped - 010 / 13 - 401 - 00 - 214 THEUST CHAIRER	PLIMIT	2007	2-3/PALC YES		***
FAILURE MODE-FAIL TO OPE B DELATED 250 MICHORECOME	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, TRANSITION FROM 18MITION STACE TO MAINSTACE ON SUSTAINER EMSINE WA B DELATED ESO MICROSECOMDS. THE CAUSE WAS NOT DETERMINED.	ON FROM 1840TTON BTAG	E TO MEIN	746E OR 8W	TAINER ENGINE WA	
SYSTEM EFFET-HOME.						
WOHLLE EFFET-104.						
CORRECTIVE ACTION-ND CORR	MECTIVE ACTION TAKEN.					
PROPILATON-MAE-3/A SUSTATINCE	A-69-24-5000F TUBE, FITTING	FAR	75F 821106	8VCARORE 11	YES 60/C NO 27-17809-11	•
FAILURE MODE-STRUCTURAL. UTED TO THE IMMELLITY OF D 8-NUT INSTALLATION.	. THE TUBE ASSEMBLY FAILED WHEN CHE MB-20010 RLEEME WAS FOUND CAACKED, THE PAILURE IS ATTRIB The soft cadmium-plated brads bleeme to withstand the toneue required for a steel tubing an	E MS-20659 BLEEVE WAS EVE TO MITHBIAND THE	FOUND CAL	ICKED, THE I	ALLURE IS ATTRIB	
CORRECTIVE ACTION-ALL DR	CORRECTIVE ACTION-ALL BRASS SLEEVES IN STOCK AT SYCANORE MENE SCHAPPED.	EDE SCIAPED.				
PROPULSION-IME-A/B BUSTA INCR	A-86-24-3087F TUBE	FAR 27-17000-11	755	SYCANDRE YES GOC NE NO	309 5 3	703680
FAILURE MODE-LEAK-EXTERMAL. THE T EQUATE DEBURRING PRICK TO PLARING.	FAILURE HODE-LEAK-EXTERMAL. THE TUBE ASSEMBLY FAILED WHEN THE PLARED ENDS LEAKED. THE PAILURE IS ATTRIBUTED TO IMAD Buate dedutring prick to plaking.	THE PLANED ENDS LEAK		ILURE 18 A'	TRIBUTED TO IMD	·
CORRECTIVE ACTION-FACTORY	RY PERSONNEL WERE REINSTRUCTED IN TUBE PLARING OPERATIONS. HPS 24.198 WAS REVISED.	TUBE FLARING OPERATIO	NS. HP3 E4	1.196 WAS RI	.VI 9ED.	
PROPULSION-W2-A/B BUSTAINER	AE62-0513/B3-401-00-127 Pump-Turbo	P.I.W.T	1£70 4£ 0311	8-3/VTR YE	YES ROCKETDYNE NO	992739
FAILURE MODE-OUT OF AMECIFICATION. BUSTAINER BETWEEN LIFTOT AND 220 RECOMDS. IN CONTRAST, O THE LIMITED INSTRUMENTATION IFOUR PARAMETER		THRUST CHAMBER PRESSURE INDICATED AN ALMOST LINEAR DECREASE OF 50 PSI 66 DISCHARLE PRESSURE INCREASED TO PSI DURING THE SAME INTERVAL. DUE 1) THE CAUSE OF THE ANGMALIES COULD NOT BE DETERNINED.	AN ALMOST 0 PB1 DURI D NOT BE	I LINEAR DE. ING THE SAM RETERNINED.	INTERVAL. OUR T	
SYSTEM EFFECT-OFFRATION	SYSTEM EFFECT-OFFERATION TOO LOM. THE ANOMALY RESULTED IN DECATABLD SUSTAINER PERFORMANCE.	DECREABED SUBTAINER P	CRFORMAKE	.:		
VEHICLE EFFECT-LATE SUSTAINER ENGINE CUTOFF PPROMIMITELY 7.5 SECONDS LATER THAN PLANNED.	VENICLE EFFECT-LATE BUSTAINER ENGINE CUTOFF. DUE TO DECREAGED PERFORMANCE LEVEL, SUSTAINER ENSINE CUTOFF TINE MAS A PROSIMATELT 7.5 SECONDS LATER THAN PLANSED.	ASED PERFORMANCE LEVE	L, 8467AII	ER ENGINE	UTOFF TIME MAS A	
CORRECTIVE ACTION-MOME.						
					PASE 0099	

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DIFFICULTIES REVIEW-PROPULSION STSTEM-AIRSORNE

8787EH 8UB-8787EH	TEST/REPORT HANGER FAILED CONFORMS NAME	DIF DATA SOUNCE PART NUMBER	VEHICLE DATE DIF 11	SITE ME DIF	ž o	VEHICLE SITE PRI VENDOR LANE DATE DIF TIME DIF OTH VENDOR PART NO		
PROPULSTON-M2-A/B BUSTATMER	AEGE-D333 HEAD BUPPRESSION VALVE.	COMPOSITE-PRD/DPL	1270 BE \$20500	DE/VIIP	20		31576	
AILUME MODE-LEAK EKTERN	FAILUME MODE-LEAK EKTERMAL. PORT TERT IMPPECTION REWEALED A LEAK AT THE MEAD SUPPRESSION VALVE.	LEAK AT THE HEAD BY	PFRESSION V	ALVE.				
WAICLE EFFECT-MORE.								
DRRECTIVE ACTION-NEAD 1	CORRECTIVE ACTION-HEAD SUPPRESSION VALVE REPLACED.							
PRUPULSION-PAE-A/B BUSTATHER	AESI-IETH/LZ-405-00-11E BUSTATNER LOK REGULATOR	7.1e4	1120 E-1.	1/PALC	£ 6	E-1/PALC YES ROCKETOYNE -3. NO		
FAILURE MODE-OUT OF EXPECTED IN THE SMATAINER LOK REGULATOR ET INE WAS 110 PAI AND LASTED FOR	ECTED TEST VALUE. WHEN THE MEAD BUPPRESSION COES ON CONTROL, A PRESSURE SPIKE IS REFLECTED O LATOR DATA WICH IS APPROXIMATELY TO PSI ABONE THE LETTING. DURING THIS TEST THE PRESSURE SP ED FOR 1.65 SECONDS.	ESSION COES ON CONT PSI ABONE THE JETTI	ROL, A PRES NG. DURING	SURE 24 THIS TO	1 37 1 137 134	S REFLECTED O E PRESSURE SP		
SYSTEM EFFECT-OPERATION TO RATOR PERFORMANCE AND SUBJECT S THE SPIRE (1.65 RECOMDS).	SYSTEM EFFECT-OFERATION TOD HIGM. THE BUSTAINER LOK REGULATOR MEBBURE SPIKE WAS REPLECTED IN AN INCHEASED GAS GENE RATOR FERFORMINE AND SUBSEMENT THRUST CHARGER PRESSURE INCREASE. THIS THRUST OVER SHOOT LABTED THE SAME DURATION A S THE SPIKE (1.45 SECONDS).	R PRESSURE SPIKE W EASE, THIS THRUST O	IS REPLECTED WER SHOOT L	IN AN	35 35 25 35	SPINE WAS REPLECTED IN AN INCHEASED GAS GENE THRUST OVER SHOOT LASTED THE SAME DURATION A		
Watal Bret-101.								
CORRECTIVE ACTION-LIKENCHA.	; •							
PROPULSION-MAE-A/B BUSTAINER	AOJ62-0049/82-401-00-04 D45146	P. jest	40 Be	BE /VIR 166.7	88	ROCKETDYNE	*0000e	
FAILURE MODE-OUT OF SPECIFICAT DIDITION WAS CAUGED BY PEESSURI W OF PROPELLANTS TO THE GAS GEN I THE WERNIES PROPELLANT VALUES	FAILURE MODE-OUT OF SPECIFICATION. AT 188.7 SECONDS THE SUSTAINER ENGINE CHANGER PRESSURE EXCEEDED 1000 PSI. THIS C CHOITION WAS CAUSED BY PRESSURIZATION OF THE VERNIER BOLO TANKS AND CLOSING THE BLEED VALVES WHICH INCREASED THE FLO M OF PROPELLANTS TO THE GAS GENERATOR. THIS ADDITIONAL FLOW SHOULD MAYE BEEN SUPPLIED TO THE YERNIER ENGINES, HOLLYE R THE VERNIES PROPELLANT VALVES NERE CLOSED DUE TO A MALFUNCTION IN THE VERNIER SYSTEM.	AINER ENGINE CHANGE KB AND CLOSING THE HOULD MAYE BEEN BU ION IN THE WENNIER	A PRESSURE BLFED VALVE PLIED TO TH BYBTEN.	EXCEDE B WAICH E VERNI	8 1 10 1 10 1 10 1 10	CASED THE PLO FAHES, HOLEVE		
SYSTEM EFFECT-LOSS OF STRUCTURAL INT ILURE IN THE SUSTAINER ENGINE SYSTEM.	SYSTEM EFFECT-LOSS OF STRUCTURAL INTEGRITY. AT 151.4 THE CHARGER PRESSURE DROPPED TO 0 PST INDICATING SIRUCTURAL FA Lung in the Sustainer enging system.	MOER PRESSURE DROPT	B 10 0 Pa	2	#	STRUCTURAL FA		
VENICLE EFFECT-PREMIURE TARSET AREA.	WENTELE EFFECT-PREDATURE BUBTAINER DIGINE BRUTDOM. THE RE-ENTRY WENTELE INFACTED 3600 MAUTICAL MILES BHORT OF ARSET AREA.	HTRY WENICLE INPACT	CD 3550 MAV	TICAL #	KIC.	SHORT OF THE		
CORNECTIVE ACTION-NOIG.						•		
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DIPFICULTIES REVIEW-PROPULATION AVAIGN-AIRBORNE

STSTEN SLB-SISTEN	TEST/REPORT NUMBER FAILED COMPONENT MANG	DIF DATA SOURCE PART HUNGER	VENICLE DATE DIF	VEHICLE BITE PRI	PRI VENDOR HANE OTH VENDOR PART NO	2
PROPULSTON-NAE-A/B SUSTAINER	AE1-:106/BE-403-00-18	COUNTDOMN	530	BE/VIR	YES ROCKETDINE	
FAILURE MODE-FAIL TO OFERATE MET.	ERATE AT PREBCRIBED TIME, BUBTAINER OAB GENERATOR FAILED TO IGMITE DURING EMGINE START BEOVE	GAS GENERATOR FAILE	50 tes	IE DURING	ENGINE START SEQ	¥
SYSTEM EFFECT-OPERATION	DOES NOT START. ENGINE START MENURICE NOT CONFLETED.	NCE NOT COMPLETED.				
WOHICLE EFFECT-COUNTDOM	WENTELE EFFECT-COUNTDOMN ABORTED AND RESCHEDULED.					
CORRECTIVE ACTION-PROCE	CORRECTIVE ACTION-PROCEDURE REVISED TO CORRECT HETHOD OF PURBING 6.6.	URGING 6.6.				
PROPULSI CH-NAE-A/B BUSTA I NER	DASSB/LE-40E-00-07 TUBING FITTING	COUNTDOM	\$70 61070£	FALCS-E	768 80	16,2944
FAILURE MODE-LEAK EXTERN	INAL AT PITTING ON PUSTAINGR LOK PUMP INLET PRESSURE SENSE LING.	P INLET PRESSURE NO	13E LINE.			
SYSTEM EFFECT-INFROPER A	AMLOG SIGNALS.					
VEHICLE EFFECT-FLIGHT CO	COUNTDOAN ABORTED. LOW TENEBRATURE ENVIRONMENT IN THE THRUST BECTION.	HYTROIDENT IN THE TO	MUST BECT	<u>5</u>	-	
CORRECTIVE ACTION-TUBE	REPLACED.					
PROPULSION-MAE-A/B	A£61-0046/L1-401-00-70	PLIGHT	ğ	PALC	VES ROCKETDYNE	1867.08
SUBTATIVER	GHE CHARGE LINE NAA ACCUMLATOR		610131	130	9	
FAILUME MODE-LEAK ENTER- R 643 PRESSURG. LINE FAIL	HAL-THE GHE CHARGE LINE TO THE MAA ACCUMULATOR APPRINTLY OPENED CAUSING A LOBS OF ACCUMULATO LUE MAS MOST PROBABLY CAUSED BY A HIGH TEMPERATURE ENVIRONMENT.	ACCUMULATOR APPRENTI HIGH TEMPERATURE EN	Y OPENED Y	CAUSING A	LOBS OF ACCUMULA	2
SYSTEM EFFECT-DEPLETION SAME WITCH MAS INNEDIATED T 350 PSI ABONE THE 3000	SYSTEM EFFECT-DEPLETION OF 648 SUPPLY-LOSS OF ACCUMULATOR 648 PMESSURE RESULTED IN A SLIGHT DECAY IN HYDRAULIC PRES BURE UNION WAS IMPEDIATELY COMPENANTED FOR BY THE HYDRAULIC PUMP, THIS WAS NOTED AS A PRESSURE SURGE OF APPROXIMATEL Y 350 PS; ABOVE THE 8000 PS;6 STEADY STATE LEVEL POR 1.8 SECONDS. THIS CONDITION WAS LABORATORY SIMULATED.	FUMP. THIS WAS NOTECOMDS. THIS CONDITION	N V N N N N N N N N N N N N N N N N N N	ICHT DECA	T IN NYDRAULIC PR REE OF APPROXIMATIONAL	
WONTOLE EFFECT-NOME.						
CONTECTIVE ACTION-ALL ST	DANCE BOOKTER ACCUMULATOR CLANGE LINES TO BE INSULATION WRAPPED PER CIC 13141 AND CIF 12871.	ES TO BE INSULATION	MAAPED P	ER CIC 13	141 AND CZC 12973	•
PROPULSTON-NA2-A/B SUBTATURES	AE60-0851/P2-402-00-83 138 REGULATOR, BEAL	7.187	80 801113	18/578	2 A	
FAILURE MODE-CUT OF SPECTOR DISCURSE STATEMENTED TO MODIFIE	FAILUME MODE-OUT OF BPECIFICATION. APPROXIMATELY 8 BECONDS AFTER ENGINE TANKS REPRESSURIZATION FUNCTION, 188 REGULA OR DISCUARCE PRESSURE STARTED INCREASING PROM 980 PSIG AND STABILIZED AT TOO PSIG. BPEC RANKE 18 STS "7 665 PSIG. C UME ATTRIBUTED TO MODIFIED REGULATOR PISTON O-RING CAUSING ERRATIC PISTON MONEMENT.	AFTER ENGINE TANKS REPRESSURIZATION PUNCTION, 198 REGULA STABILIZED AT TOO PAIG. SPEC RANGE 18 STS "7 6gS PRIG. C ERRATIC PISTON MONEMENT.	REPRESSUR Said. Brec Dent.	RANGE 18	UMCTION. 188 ACEU 878 ⁻ 2 868 P816.	
STATEM CPTCT-OPERATION	TOO NISM. PRESSURE AT 136 MANIFOLD ABOVE SPEC THROUGHOUT SUBTAINER PRASE. AT SECO PRESSURE	ABOVE SPEC THROUGH	IL BUBTAIL	ER PASE	. AT SECO PRESSUR	
					PA6C 0001	=

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and mor at	BITTICULTIES REVIEW-PROPULSION STREEM-AIRBORNE	LBION SYSTEM-AIRBOR	•			
8727EH 848-8737EH	TEST/REPOST MAMER FAILED COMPOSENT MANE	DIP DATA BOURCE PART WUNDER	VEHICLE DITE	IF OTH	VENDOR MANE	
RECOVERED TO PROPER LEVEL.						007030
WENICLE EFFECT-NOME. NO !	MO DETRINENTAL EFFECTS RESULTED FROM MICH 183 PRESSURE.	ION 183 PREBBURE.				
CORRECTIVE ACTION-UNKNOWN.						
PROPULSION-ME-A/B BUSTAINER	AEG0-0541/P1-402-01-71 Pur-Turbo	PLICAT	710 11/ETR 401018 119.4		YES ACCRETOVICE NO	***************************************
PAILURE MODE-OUT OF EXPERONES PRINCES PURP CAVITATION PRI	FAILUME MODE-OUT OF EXPECTED TEST VALUE. SUBTRINGEN LOX PUMP INMET PRESSUME BEGAN TO DECAY AT 115.4 SECONDS AND APPR ONCHED PUMP CAVITATION PRESSURE BY 140.8 SECONDS. THIS CONDITION WAS ACCOMPANIED BY LOX PUMP SPEED PLUCTUATIONS. PRO DABLE CAUSED BY A PARTIAL CRETRUCTION IN THE LOX LING UPSTREAM OF THE STASING VALVE.	INLET PRESSURE BEG TION WAS ACCOPANIE AN OF THE STAGING V	IN TO DECAY AT BY LOK PUMP & ALVE.	8	ECONDS AND APPR UCTUATIONS. PRO	
SYSTEM EFFECT-ERRATIC OF TION MANIFOLD PRESSURE, FI R PRESSURES.	SYSTEM EFFECT-ERRATIC OPERATION-MONDARY DOMMAND TRANSIENTS RESULTED IN THE SUSTAINER CHANGER PRESSURE, LOK INJEC Tion manifold pressure, puel play discharge pressure, cas celebator changer pressure, and both yennier emsine change R pressures.	TE RESULTED IN THE NERATOR CHANGER PRE	DUSTAINER CHAIG BUNE, AND BOTH	CA PRE	BURE, LOK INJEC IR EHSINE CHANGE	
WONICLE EFFECT-HOM.						
CORRECTIVE ACTION-NOIC.						
PROPULSTON-NAE-A/B BESTAINER	AE60-0538/PE-402-00-32 188 REMLATOR, O-RING	Rien	720 12/ETR 800809 166	17. 05		611500
FAILURE MODE-OUT OF TOLE 590 PSIG TO LEVELS ABOVE WENENT.	FAILURE MODE-OUT OF TOLEBANCE. AT ENGINE TAMES REPRESSURIZATION THE 185 RECULATOR DISCURREE PRESSURE INCREASED FROM 550 PSIG TO LEVELS ABONE TOLERANCE (975 TO RES PSIG). CAUME ATTRIBUTED TO MODIFIED O-RING CAUSING EMRATIC PISTON MO ENENT.	TION THE 189 RECULA ATTRIBUTED TO MEDI	TOR BISCHARGE P	REBBUR! BING CI	INCREASED FROM	
SYSTEM EFFECT-OFERATION MED TO PROPER LEWEL.	ON TOO HIGH. PRESSURE AT 188 MANIFOLD HIGH THROUGHOUT BUSTAINER PHASE, AT SECO PRESSURE RECOVE	HIGH THROUGHOUT BUG	TAINER MASE. A	1 160	PRESSURE RECOVE	
WHICLE EFFECT-HOME. NO	MO DETRINGUTAL EFFECTS RESULTED FROM HIGH 185 PRESSURE.	ice tes messane.				
CORRECTIVE ACTION-UNERSONAL						
PROPULSION-NAE-A/B SUSTAINER	4480-0864/PE-401-00-3E THRUST CHAMBER	COUNTDOMN 100106	3£0 18/ETR \$0050E5		TES ROCKETDYNE NO MAIOS-NA-S	90000
FAILURE HODE-OUT OF SPEC.	FAILURE MODE-OUT OF SPECIFICATION. BUSTAINER ENGINE MAD ROUGH COMBUSTION. RCC ACCELEROMETER LEVEL REACHED 856 AT 1. 55 SECONDS AFTER BUSTAINER FLIGHT LOCKIN. SEVERAL PINHOLE LEARS FOUND ABOVE IMPOAT OF COMBUSTION CHAINER.	CH COMBUSTION, RCC.	ICCELEROMETER L	TVEL R	ACHED 656 AT 1.	

BYBICH EPPECT-OPERATION BTOPD PRENATURELY. AUTOMATIC EMBINE CUTOPP OCCURNED 1.53 BECOMDS APTER BUBINER PLIGHT LOC RIN MAEN OVER BO MILLISECCHOS OF BINARY COURT OF OVER 80 6 MERE ACCURNEATED ON THE BUBINER RCC STRIEM.

CORRECTIVE ACTION-IR SISSES MRITTEN. EMSINE REDIONED AND REPLACED BY SUSTAINER FROM SSD.

WHICLE EFFECT-PREMATURE PROPULSION CUTOFF, LAWICH ATTEMPT ABOUTED.

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DIPFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

DIF THE DIF OTH VENDOR PART NO	11/ETR NO 002040	INTO CONTROL AT THE PROPER TIME ARM/BAPE SMITCH TO BAPE POSITI			15/ETR NO 000040	AT PRESCRIBED TIME. DURING FACT TEST, ENGINE START SEQUENCE MAS TERMINATED BY A MAINST PUEL WHITPOLD PRESSURE BATTCH DID NOT PICK UP MEN MAIN FUEL VALVE, OPENED. THIS FAILUR MUCKS PURKE PRESSURE FROM THE RCC COMSCIE. CONSCIE MAS UNDERFOING MODIFICATIONS AND IN	NOT ACTIVATE DUE TO INCOMPLETE	ERATION.		11/ETR TES ROCKETDYNE 002090	IT PRESCRIBED TIME. DURING FACT TEST, THE MAIN LOX AND FUEL VALVES ON THE BUSTAINER EN				11/ETR VES 10 NO	MA D.S INCH INSTEAD OF D.ES IN	
DIF DATA BOURCE VEHICLE	COMPOSE TE- J FACT 54D 600608	ER MAIN FUEL VALVE MENT 1 MOART, CAUSE MA CTCLIMG	ENT OUT OF CONTROL.	OFERATION WAS NORMAL.	COMPOSITE-J FACT SAD GOODO	E START UP LMEN CONSOLE	TOLD PRESIUME BUITCH DID N	NED PROPULSION BYSTEN OPE		CONTOB 1 TE- J FACT 540 6003E7	TEST, THE MAIN LOK AND F				COMPOSITE-J FACT 44D 400322	AINER HTBRAULIC PACRAGE W NTROL PU VALVE.	
TESTARPORT NUMBER FAILED COMPONENT MANE	AASO-DOSS/P1-ACO-D2-34 BUSTAINER MAIN FUEL VALVE	FAILUME WODE-ERRATIC OPERATION. DURING FACT TEST THE BUSTAINER MAIN FUEL VALVE NEWT INTO COMTROL AT THE PROPER TIME But returned to full open 13 seconds Later. Failume was secondary. Cause was cycling arm/safe smitch to safe positi Me.	SYSTEM EFFECT-ERRATIC OPERATION. SUSTAINER MAIN FUEL VALVE NENT OUT OF CONTROL.	TEG. CIRCURSTANCES, VALVE	AA60-0035/P1-4C0-02-94 SUSTAINER FUEL MAIIFOLD PRESSURE 8 MITCH		BYSTEM EFFECY-CPERATION DOES NOT START. BUSTAINER FUEL MANIPOLD PRESMINE BMITCH DID NOT ACTIVATE DUE TO INCOMPLETE CONFICATIONS IN THE RCC PURCE COMBOLE.	VENICLE EFFECT-FREMATURE PROPULSION CUTOFF. FACT TEST SIMMATED PROPULSION SYSTEM OPERATION.	A.	AA60-0035/PI-4CO-01-34 SUSTAINER MAIN LOK AND PUEL VALUES	DATE AT PRESCRIBED TIME, DURING FACT MIROL.	DOES MOT STARY.	WEMICLE EFFECT-COMPOSITE ABORTED AND RESCHEDULED.	CORRECTIVE ACTION-UNKNOWN (NO PURTHER DETAILS KNOWN).	AA60-0019/P1-4C0-01-48	PAILURE HODE-OUT OF TOLESIANCE. LINE FROM PURNE PANEL TO BUSTAINER HYBRAULIC PACKABE WAS 9.5 INCH INSTEAD OF 9.25 IN CH CALLED FOR. THIS LINE BUPPLIES FUEL NEWSING PRESSURE TO CONTROL PU VALVE.	
8731EN 316-3737EN	PROPULSION-MAE-A/B BUSTAINER	FAILURE MODE-ERRATIC OPE BUT RETURNED TO FULL OPE ON.	SYSTEM EFFECT-ERRATIC OF	VEHICLE EFFECT-COMPOSITE DELAYED.	Propusion-We-A/D Bustainer	FAILURE MODE-FAIL TO OPERATE A ASE LIMITER CUTOFF. SUSTAINER E MAS SECONDARY DUE TO A CONTIL ADVERTANTLY ISSUED A PURCE.	SYSTEM EFFECT-OPERATION DOES IN MODIFICATIONS IN THE RCC PURGE	VEHICLE EFFECT-PROMIUME	CORRECTIVE ACTION-UNKNOWN.	PROPULSION-M2-A/B BUSTAINER	FAILURE MOE-FAIL TO OPERATE A GINE FAILED TO GO INTO CONTROL.	SYSTEM EFFECT-OPERATION DOES NOT STARY.	WENTELE EFFECT-COMPOSITE	CORSECTIVE ACTION-UNKNOW	PROPULSTON-NAZ-A/B SUSTATNER	FAILURE MODE-OUT OF TOLE OF CALLED FOR. THIS LINE	

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DIFFICULTIES REVIEW-PROPULSION STRIEN-AIRBORN

	DIFFICULTIES REVIEW-FROPULS ON STREM-AIRBORNE	RECON STRTEN-AIRBOR	Ä				
BIG-STSTEM	TEST/REPORT WANGER PAILED COMPONENT WANG	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E 71ME 01F	- 2 - 6 - 6	VEHICLE BITE PRI VENDOR NAME DATE DIF THE DIF OTH VENDOR PART NO	
SYSTEM EFFECT-OPERATION STARTS TOO LATE, START BECAUSE OF ENTRA VOLUME IN THIS FULLS START.	STRIEM EFFECT-OPERATION STARTS TOO LLIE, PROPELLANT VALVE DID NOT 60 INTO CONTROL AT NORMAL 10 SECONDS AFTER ENGINE START BECAUSE OF EXTRA WOLUNE IN THIS FUEL LINE. VALVE DID NOT 80 INTO CONTROL UNTIL 50 SECONDS AFTER SIMULATED EMS ME START.	NOT WO INTO CONTROL	KG. AT HOS UNTIL 50	SECONDS	955	AFTER ENGINE AIMMATED ENG	1000
WHICLE EFFECT-HOME.							
CORRECTIVE ACTION-PROPER	ER SIZE LINE INSTALLED.						
PROPULSTON-NAE-A/B SUSTAINER	FTA6577/P1-403-00-42 REMATOR	COLATDOM	420 600308	11./ETA	7E8	TES ROCKETDYNE	73
FAILURE MODE-OUT OF EMPECTED TEA	FAILURE MODE-OUT OF EXPECTED TEST VALUE. 188 PHEUMATIC REGULATOR OPERATION MAS UNSATISFACTORY DURING ATTEMPTED LAUM H COMIDOMN. NO ADDITIONAL DATA.	LATOR OPERATION WAS	UNBA 11 BF.	CTORY DU	386 /	TTEMPTED 1AUM	
STATEM EPPECT-ERRATIC OPERATION.	OPERATION.						
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NEGALATOR REPLACED.	LATOR REPLACED.						
PROPULSTON-MAZ-A/B SUSTATNER	FTA6560/P1-401-00-42 Bustainempyvalve, Lipycal	ř	4£0 600£04	11/ETR	5 5	YES ROCKETDYNE NO	1771
FAILURE MODE-LEAK-EXTER STAINER MAIN FUEL VALVE.	FAILURE MODE-LEAK-EXTERMAL, POST-TEST INVESTIGATION REVEALED A SLIGMY FUEL LEAK AT THE SUSTAINER LIP SEAL ON THE IASINER MAIN FUEL VALVE.	D A 3LIGHT FUEL LEA	K AT THE	WSTAINER	12	EAL ON THE SU	
SYSTEM EFFECT-DEPLETION OF THE SUSTAINER PARIN FUEL	m of Liquid Supply. Post-test investigation revealed a slight leak at the sustainer Lip Seal Ur. Valve.	GATION REVEALED A 8	LIGHT LEA	AT 746	8U8TA	HER LIP SEAL	
VEHICLE EFFECT-NOME.							
CORRECTIVE ACTION NEPLACE	ACE LIP SEAL.						
FROFIL.SION-NAE-A/B SUSTAINER	PTABSE/PT-4CO-01-48 IGNITIONDETECTORCONECTORPIN	COMPOSITE-8 FACT	490	33/ETB	5 Q		• • • •
FAILURE MODE-OPEN (ELECT) THIS MAS CAUSED BY A PLUE	CT). OPEN CINCULT INDICATION WAS RECEIVED ON THE SUSTAINM IGNITION DETECTOR LINK CINCUITAT. US COPPECTOR PIN WHICH HAD BEEN PUBHED BACK INTO ITS SOCKET AND WAS NOT MAKING CONTACT.	INED ON THE BUSTAIN ID BACK INTO ITS SOC	TR ICHITIC	N DETECT	1	M CINCUITAY.	
BYSTEM EFFECT-INTROPER DISCRETE B 16M1110N DETECTOR LINK CIRCUITAY.	BVBTEM EFFECY-IMPROFER DISCRETE BIOMIL, AM IMPROFER BIOMAL WAS BEING RECEIVED RESARDING THE BTATUS OF THE SUSTAINER Somition detector Link Circultry.	UNE DEINE RECEIVED	REGARDING	THE BTATE	8	THE BUSTAINER	
WENTCLE EFFECT-NOME.							
CORRECTIVE ACTION-A TEMPOR	SPORARY REFAIR WAS MADE IN CROSER TO COMPLETE THE TEST. THE PLUS WAS REPLACED FOLLOWING THE	CHALETE THE TEST. T	3 2 3	B REPLACE	g e		
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSONNE

87.57EH 848-873TEH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOURCE PART HUNDER	VEHICLE Date DIF		SITE PRI VENDOR MANE.	MARE NRT NO	
PROPULSION-MAR-A/B BUSTATMER	FTABSSS/PI-4CO-03-4E MICROSWITCH SAS GENERATOR BLADE VA LVE CLOSED	CONFOST IE-B FACT	42004 420	11 /ETR -8000	7E8 90		80167R
FAILURE HODE-FAIL TO CHEF	FAILURE HODE-FAIL TO CHERATE AT PRESCRIBED TINE. IMMEDIATELY BEFORE COUNTDOMN START MICROSWITCH DID NOT PICK UP AFT IN VALWES NERE CACLED.	FEFORE COUNTDOM	TART MICA	08W11CH B	ID NOT PICK	5	
SYSTEM EFFECT-IMPROPER D	DISCRETE SIGNALS. HICROSHITCH BID NOT GIVE PROPER VALVE POSITION INDICATION.	T GIVE PROPER VALVE	POST1104	1MD1CA110	i	 -	
WEATCLE EFFECT-COMPOSITE	TE DELAYED. 65 MIN DELAT IN STARTING MAY BE PARTLY DUE TO THIS PROBLEM.	MAY BE PARTLY OUE TO	THIS FRO	BLEH.			
CORRECTIVE ACTION-WICHOS	CORNECTIVE ACTION-WICHGENTION SET BY MAND. MEMLACED AFTER FACT.	ACT.					
PROPULSION-M2-A/B AUSTAINER	AZC-ET-115/P5-401-00-40 138 REGAATOR	nim	400 901810	13/ETR	YES ROCKETDYNE NO		93926
FAILURE MODE OUT OF SPECI	FAILURE MODE-OUT OF SPECIFICATION. BETWEEN 81.5 AND PSIE. EXCEEDING SPEC NAME 575-025, THON DECREAND T	'88 REGULATOR DI CAUSE URRINGIAN.	A DISCHAI	nesau 30	*88 REGULATOR DISCHARGE PRESSURE INCREASED TO 64 CAUSE URRIGIN.	3 0	
SYSTEM EFFECT-OFERATION	N TOO HIGH. PREBURE AT ISS MANIFL.	O SPEC HIS	FOR APPR	OKINA TELY	OF SPEC HIGH FOR APPROXIMATELY 2D SECONDS.		
PENICLE EFFECT-NOVE. HIGH	VENICLE EFFECT-NOVE, HIGH PRESSURE DID NOT AFFECT ISS OPERATIO".	710".					
CORRECTIVE ACTION-INCHINGAM.	±						
PROPULSION-MAR-A/B BUSTAINER	82-415-C7-E4 BUSTAINER THRUST CHANDER	CAPTIVE	E40 591019	8-2/8YC	TES POCKETÜYNE NO R.A-109-144-3	Y 5	150000
FAILURE MODE-STRUCTURAL.	IL. CHE TUBE IN THE BUBTAINER DIGINE HAS POUND RUPTURED ON POST TEST INSPECTION.	AS POUND BUPTURED OF	1 POST TEN	T INSPECT	10H.		
BYSTEM EFFECT-NOME-SUSTA	SYSTEM EFFECT-NOME-SUSTATIVER EMBINE OPERATION WAS SATISFACTORY ALTHOUGH THRUST CHANGER PERFORMANCE INS LOWER THAN O The previous piring.	ORT ALTHOUGH THRUST	CKANBER 1	erpornam	E NAS LONER	O MAN	
VEHICLE EFFECT-HONE.							
CORRECTIVE ACTION-UNKNOW	CORRECTIVE ACTION-UNKNOWN-LABT TEST CM MISSLE 24D.						
PROPULSION-NAE-A/B AUSTAINER	AZC-27-099/P4-401-00-19 REGULATOR	COUNTDOWN	1301 48	14/ETR -480	TES ROCKETOVNE NO	¥	
PAILURE MODE-DRIFT. INTER	FAILURE MODE-DRIFT. INTEGRATED START SYSTEM REGULATOR DRIFTING.	ż					
BYBTEN CFFECT-NOW.							
WENTELE EPPECT-COUNTDOMN (MB 33 MINUTES AND PAILING	WENICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDLED. HOLD CALLED IN ATTEMPT TO CORRECT RESULATOR DRIFTING. AFTER HOLD ING 33 MINUTES AND FAILING TO CORRECT PROBLEM. COUNTDOWN ABORTED.	LED IN ATTEMPT TO CO.	RAECT REI	WATOR DR	IFTIME. AFTE	100	

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4945 WOF 61	DIFFICULTIES REVIEW-PROPULBION SYSTEM-AIRBORNE	KEICH SYSTEM-AIRBOR	¥				
# # # # # # # # # # # # # # # # # # #	TESTAEPORT NUMBER FAILED CONFOMENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	817E 7116 01F	SITE PRI VENDOR NAME TIME DIP OTM VENDOR PART NO	MANE PART NO	
CORRECTIVE ACTION-UNKNOWN.	Ť						656873
PROPULSION-MAE-A/B BUBTAINER	SE-407-C6-24 EMGINERELAYBOX,LOCK-IMPELAY	CAPTIVE 900EE0	24D 991009	8-2/8VC 1.76	VES ROCKETOVIKE NO		
PAILURE MODE-FAIL TO OPE STAINER MAINSTAGE CONTROL	OPERATE AT PRESCRIBED TIME. THE BUBTAINER FLIGHT LOCKIN RELAY (KTAC) FAILED TO ACTIVATE THE BU ROL BOLENOID.	NER FLIGHT LOCKIN A	ELAY GA74C	CALLED	TO ACTIVATE TO	3	
SYSTEM EFFECT-OPERATION OF THE MELAY HOT ACTIVAT	STRIEM EFFECT-OPERATION STOPS PREMATURELY. SUSTAINER AND BOOSTER ENGINE CUTOFF OCCURRED AT 1.78 SECONDS AS A RESULT OF THE RELAY HOT ACTIVATING.	DOSTER ENGINE CUTOFF	OCCUMBED	AT 3.70 E	ECOIDS AS A RI	1907	
WENICLE EFFECT-PREDATURE	WENICLE EFFECT-PREMIURE PROPULSION CUTOFF, NO DETRINENTAL EFFECT ON VEHICLE.	OFFCT ON VONCLE.					
CORRECTIVE ACTION-REPLAC	LACED ENGINE RELAY BOX.						
PROPULSICH-MAE-A/B BUSTATIER	RE-404-84-EA SUSTAINER THRUST CHANGER	CAPTIVE	240 990918	86/8 VC	NO ROCKETDVNE NO		276000
FAILURE MODE-STRUCTURAL.	FAILURE MODE-STRUCTURAL. LACK OF EXTERMAL COOLANT WATER PLOM RESULTED IN OVERHEATING OF CHANGER. A TOTAL OF 7 TUBE RACKS WITHIN THE CHANGER WERE FOUND.	JA RESULTED IN OVERH	EATING OF	CHANGER.	A TOTAL OF T	¥	
8191DA EFFECT-NOME.							
VEHICLE OFFECT-NONE.							
CORRECTIVE ACTION-REPAIR	IT PEED.						
PROPULSTON-MZ-A/B SUSTAINER	AZC-27-077/P4-403-00-10	A1647	100 590908	14/E19 E95.3	2 2		
FAILURE MODE-PAIL TO CEA TOTT BIGMAL. CUTOFF BIGMA OBTER BECTION.	PAILURE MODE-FAIL TO CEASE OPERATION AT PREBCRIBED TIME. ABNORMAL BUSTAINER SMUTDOMM OCCASIONED BY THE LACK OF A CU Topt signal, cutoff bignal coald not occur because of low vehicle acceleration due to the failure to jettison the bo Obter bection.	HORMAL BUSTAINER SM PICLE ACCELERATION	UTDOM OCC	ASTORD .	17 1ME LACE OF TO JETTIBON TO	3 g 4 ¥	
SYSTEM EFFECT-OPERATION CUTOFF SIGNAL WAS RECETV PRESSURE MAD DECAYED TO Z RESULT OF GAS AND/OR LIBURATION.	BYSTEN EFFECT-CPERATION TOO LONG. BUSTAINER BHUTDOMN MAB THE REBULT OF PROPELLANT DEPLETION. ALTHOUGH A MANUAL FUEL CUTOFF BIGNAL MAS RECEINED AFTER BUSTAINER BHUTDOMN, ALL PROPELLANT VALVES REMAINED OFEN BECAUSE HYDRALLIC CLOSING PRESSURE HAD DECAYED TO ZERO. AS A RESULT, RESIDUAL THRUST ACTED UPON THE NIBSILE. THIS THRUST IS THOUGHT TO BE THE RESULT OF GAS AND/OR LIQUID LEAKAGE THROUGH THE OPEN PROPELLANT VALVES OF THE EMBINES AND OPEN BLADE VALVE OF THE SU	F RESULT OF PROPELL OPECLANT VALVES RENICTED UPON THE NISSIANT VALVES OF THE E	ANT DEPLET ATHED OPEN LE. THIS T HEINES AND	TON. ALTON BECAUSE PHRUST 18	OPELLANT DEPLETION, ALTHOUGH A MANUAL FUEL 18 REMAINED OPEN BECAUSE HYDRALLIC CLOSING NIBBILE, THIS THRUST IS THOUGHT TO BE THE THE EMSINES AND OPEN BLADE VALVE OF THE BU	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	

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PROBLEMENT BUTTON OF STREET

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COMPA PROPERTY COMPANY

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VOICLE SITE		T OF A CLEAN	9-8/8TC H4 0.	1 14 THE BOUT	HO 145 40H			81.78TC 111 247	2.0 OPERATION	BRIED CHANGE	1 LON 100F. 1	A-3/WIR	ME IN PRESC	.:	A-3/4TR			
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Workpan meen on hand coening mee		PLIEST CORPICE, SPEN		THE THE WE THEN THE THE PERSON OF THE THE TO AN OPEN CINCUIT IN THE BOURD-FINE CINCUIT.	bites seeds seek start. That the testinate paring function start were the vibrille no. 1 louiter fa	TO ME EXCERTS.	METER MAS METURED TO MOCKETIME FOR FAILURE ANALYSIS.	N-CP-C-SI	SHE CHERTICH- RESERVICE ONER PRESONNIZED BARING WENGER SOLO CPETATION DAE TO ABHORMALLY C.	THE MONEY GREINE LOR THAIRS NOTE PROSERVINDS TO THE PAIR. WONIEST CAMBER PROSEUMES INCREME.	PROPERT MEMORIES THEIR TO PRECISE SUPPLYING RESULATOR LETN LON TEAC. HELIUM.	100 (1-2)-(n-1) (n-1)	MANCE. THE MEMBER NEWEST TO PRESENTED THE PUBL START TANK IN PRESCRIBED TIME.	We Late. Puts. start that appetate its accords to microanize.	ML.ATM:	APPRALITY PROTECT TO THE VEHICLE PARE STANT THANS.		
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CONTACT BYNAMICS CONTACT BETTSION STPFICATION RVICH-PROPERSION STRICK-ALABORNE

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art.	Paten conduct made	BIF DATA BOUNCE PART NAMBER	WENTER BIF	11 0 11 T	2 E	WENICLE BITE PRI VENDOR MANE	
STATE STATE OF STATE	PRIME EVERY CHEMITSE 160 LOSS. FULL START TAKE FAILED TO PRESENTED IN EXPECTED THE.	PRESENTEE IN COPE	TED 11K.				*****
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	21-16-000-2-1 val	CORPORT TE-FTE/TOFL	150 980619	A-8/MR	25.8	VES ROCHETDYNE	*****
THE SECURITY OF	OFFEITHDE-BOOTS WE COPPET SENDING THE REGILATOR PRESSURE SECARE ERRATIC, PLUCTUATING DETAILS.	C ACULATOR PACSOU	E SECANE	ERRATIC.	7.5	TUATING BETTEE	
SANS GPECT-MINE. LOSS	LOSS OF MELTON BOTTLE PRESSURE.					-	
BOACH BARRIAGH							
C-CC:14 KIND-VIEC	HOME MEMBERS OFFICE WANTS AND THE RESULATOR MINE ACPLACED.	ECULATOR NESE ACPLA	ě.			!	
	57-48-75 BA. M	FLIGHT	730	ABRESD-1 VES MAA	20	MA	000301
H-L.M. *M*E 180.411	LATHE' CHECK WANTE IN THE ENGINE LOF TAIN PRESSURIZING LINE PAILED TO CLOSE AT ENGINE TAIN REPR	N PRESSURIZING LIM	FAILED 1	7 3000 Q	ă	GINE TANK REPR	
PRINT OF LITTLE CO.							
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O WIT HOW THE MAN AND THE TO WITH THE TO WITH THE TO WITH THE TO WITH THE TOWN THE T	CHREETTW ACTOR THE 13 A MEDETITING PROMEDI. BUT HAS-148 WAS EDERATED FOR SLY WONICLES WHICH CHANGED VALVE POPP BY MENDING ACCO BANGER TO WELCH. MUDICIDATION TO CONTR AME WONICLES WITH THIS BUT MAS BEEN DISAPPROMED. A PRE-PL THAT MENDING FLOW LEAS ONCO. FOR 728 MIS-18 IS PREDEDILLY PURIFORMED ON AME VOVICLES.	WAS COURTED FOR I B WONTOLES WETH THI PORRED ON AND WONTON	LV VDHICL IS ECP MAS EB.	ES WHICH	COLEM	GED VALVE POPP OVED. A PRE-FL	
-	48.00-13 78.140-0,17	COLUTBOLIN	730 660E18	ABRESS-1 YES HAA -12 NO ROOF	2 9	МА ВЭФООССИ12-010 0	***************************************
PRINT ME-ENTON L	PARAME AGRE-EXTENDE LIDA. BE FLIX LINE SETMEDA THE SOS AND THE BOOSTER LOS RESULATOR FAILED.	O THE BOOSTER LOK	IEULA TOR	FAILED.			
BESCHE BINECT-ESSEN, CON	CHEMENT TEXTON THE BROTTE BAPTOLY.	•					
שמדע שבינים אינים	Liver was despited.						

PASC 0076

CONTRACT ACTION OF PLES LINE LAS BULLETS.

SENERAL DYNAMICS CONVAIR DIVISION

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	BIPFICULTIES REVIEW-PROPULATON BYATCH-AIRECANE	A. SICH SYSTEM-AIRBOR	¥				
974 248	TEST/REPORT MUSER FALLES COSPONENT MANE	DIF DATA BOURCE PART NUMBER	WHICLE DATE OFF	817E	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BITE PRI VENDOR MANE.	
**************************************	WALTE AND CHECK, MEAL	CONFOST TE-PRO/DPL	9.00	484E86-8	7C0 MAA		640473
Principal appropriate ting. Bir telef.	LEDA. BURNING PORT WOR LEAR CHECKS A LOK LEAR WAS DISCOVERED AT THE LOM START TANK FILL AND CH	OR LEAR WAS DISCOM	AED AT THE	LOH BTAM	1 A 8 K	FILL AND CH	
STREET CPECT-LON TOPCOATURE CAVIROREDIT	CHATAL DIVINOSOM.						
WATCH BPECT-EDE.							
COMMETTIVE ACTION-A ME	CHARTTINE ACTION-A MEN O RING WAS INSTALLED.						
NOTE STATE OF STATE O	960-1-66-01E WAYE-VEHT AND MELIUF	CONFOAT TE-F10/19PL	9-60 9-60113	ABRESD-E YES HAA	TES TAA		90276
PARLINE NEDE-EXTENDAL LEAR. PAILURE OF TR EVINENCED BY AMBIBLE AND VISIBLE LEARME.	LEAR. FAILURE OF THE LOR START TAUR VEHT AND MELIEF VALVE TO FULLY CLOSE AFTER DETAURING WAS DE VISIBLE LEARME.	ENT AND MELIEF VALV	E TO PULLY	CLOBE AF	25 25	APELING MAS	_
PFSTDR EFFETT-404E.							
POSCE DIECT-CHOOL	WAGGE STECT-CHOOFIT RESORDALES. HE MET BRESS REGERAL HAS RESORDALED.	AL MAS RESORDALED.					
COMMETTINE ACTION-THE VALVE	MALYE MAS REPLACED.						
Norwalian est un	55-400-01-72 Taline P.Ex	COMPOSETE-PROVIDE.	720 840113	ABRES0-3	VES NAA NO RSB	NAA N3800CCX12-010 0	192061
FAILURE MODE-EXTERNAL LEAK.	LEAK. THE PLEX LINE BETHETH THE BOG AND THE BOODTER LON REGULATOR PAILED.	UD THE BOORTER LOK	RECULA TOR	7160.			
STATE OFFICE CHIME	STATES STREET-ENAINE COMPARTMENT TEMPERATURE DROPPED.						···
CHOIL BYET-IDE.							
COMMECTIVE ACTION-THE LINE	LINE WAS REPLACED WITH A RESISTOPLEN LINE.	LINE.					
NOPERIOR ME-LA	61-450-01-181 6EULA 708	COMPOST VE-PRO/09.	1250	AL ATTR	22 OS		404107
FAILURE MOX-OFF OF SP CHORELLATION.	FAILURE HIDE-OUT OF BFECIFICATION. LARGER THAN NORMAL INTERATED START SYSTEM FRESSURE TRANSENT AT ENGINE TANNS FR ISOMRIZATION.	AATED START SYSTEM	FRESAURE T	LABIENT /	IT ENG!	AS TAIRS PR	
STREET SPECT-OFGAA 71 CH 700	IN THE MISH. MISH PRESSURE TRANSLENT IN START SYSTEM.	M START STEEK.					
SPECT-104.							
COMMETTY ACTION-100 ECONEATOR MEMARICO.	ROMESTON NOTICED.						
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CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

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BTSTER DD-375TR	TEST/AEPORT MUNER FAILED COMPONENT MANE	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E 1114E 01F	PRI VENDOR HANE OTH VENDOR PART HO	
MOTALS CO-TALS-A/B MOTERAL	624-AP201-001/01-402-00-106 REVALATOR	PLIMI	311069 0 90 11	9768-1/W Y 78 N 878	9788-1/M YES ROCKETDYNE TR NO 278	***************************************
#2 to 160-300# 300/14	PARTUME MORE-OUT OF EMPECYED WALUE, IMPEGIAAR COCILLATIONS OF THE 165 REGULATOR OUTPUT PRESSURE.	S OF THE 185 REGULATO	A CUTPUT (MESSUME.		
STREETS STREET-STORE. OR	ETETTS EFFECT-MOME. GECILLATIONS OF 15 P-1 NEWS NOTED IN THE 125 REGULATOR CUIPUT PRESSURE MEASUREMENT DURING T HE WENNESS BOLD PAINE. BANK AS NOTED ON VONICLES 1700, 1860, 1860, 2130, 2430, 2470, 2100, AND 5000.	IN THE 185 REGULATOR O. 1860, 2215, 2435,	2470. 2100	LESSURE MEA), AMD 5000	SURENT DURING T	
Word Fret-1016.						
CONTENT ACTION HOME.						
MOULEJO-ME-AA WIGH	471-00-60-69-000-645	PLICAT	1450	8-3/VTR 7 0- N	7Es NO	***
FAILURE MODE-FAIL TO OFFILE TO TAILURE MAS APPROXIMATELY 0.6 M	FAILURE MODE-FAIL TO OFERATE AT PRESCRIBIED THE. TRANSITION PROM IGHITION STAFE TO MAIN STAFE ON THE BUSTAINER EMSI WE MAS REPORTINATELY 0.0 SECONDS LATE, LATE EMERGIZING OF MELAY KYSC MAS DETERMINED TO SE THE MOST PROBABLE CAUSE, M O LAL DATA RECONDED IT AND E RECORDS INVALIS).	ON PROM 1641TICM STAS RELAY K75C MAS DETERM	E TO MAIN	STAGE ON T	PROBABLE CAUSE, H	
STATES COTTON-HOME.						
WHELL CTELT-KORE.						
CONECTIVE ACTOR-UNIDOR.	CA.					
PEOPLEST SHIP HE - 1.78	ZZWA - CEL/PAB43/LE -4170-01-138 REUL ARCH	COMPOST TE-PRB/DPL	1390	1-E/PALC T	1-8/PALC TES ROCKETOTHE NO SESTOO	90 Year
CATLURE WIDE-DRATTE O	CATLUNE WINE-ORATIC OPPLICTION-POSSIBLE STICKY REVULATOR PLSTON.	P1870N.				
STREET DIECT-LERATIC	STREET ED FEST-EDRATIC OPEDATION CAUGED PRESENCE PLUCTUATIONS IN START BYSTEM.	ONS IN START STREET.				
WHICH SPECT-101E.						
CONSECTIVE ASTRON-ADSULATOR REPLACE.	LATOR ROLLICE.	•				
PROPULSION-NE-A/B	AJOS -0000 /TAPEZ /LE-AHO-02-118 GEG/LL 700	COMPOS I TE-FRO/OFL	1190	0H 1-8/PALC 7E4	7Es 70	00.705
FAILURE MODE-EDMATIC O	FALLING HONG-CHARTIC OFFRATION IN THICKLATTS START SYSTEM REGULATOR.	REGULATOR.				
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DITTICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

8787878 868 - 85878	TEST/REPORT HUBER	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	11 6 11 T	OH TRADOR HANE OTH THE	
PROPILE SON B-1.7E MENERAL	ANAS -0043-701-401-00-40	7.1847	\$1 £0£3	8-1 /VTR -600	22	•
FATLUME MODS-EXTERNAL LEAK. THE BODDIT MORMAL WALLE OF ELOD POIG TO ROD FAIG. OREOUP AS THE SYSTEM PRESOLAE MATCHES O AT AN LIKE LEAK, OR CLODE, PRIOXIMITY OF	PATLUME MODI-EXTERMAL LEAK. THE BOCKER HYDRAULIC SYSTEM PRESSURE STARTED AM UNUSUAL DECAT AT 1-600 SECONDS FROM A MORMAL WALK OF ELLOS PRIS TO SCO FAIG. THE PRESSURE RECOVERED TO 8130 PSIG BY T PLUS 77 SECONDS. THIS READIMG IS CRA CAROUP AS THE SYSTEM PRESCURE BUITCHES DID NOT ACTIVATE, ATTRIBUTED TO A PROZEM PRESSURE TRANSDUCER SENSE LIME CAUSE O ST AM UNE LEAT, OR CLOSE PROXIMITY OF THE SENSE LIME TO THE LME BHROUDS.	RESSURE STARTED AN (ED TO \$130 PSIG BY ' TRIBUTED TO A PROZED E LIRE SHROUDS.	PREDBURE	CAV AT T MCCMOS. TRANSDUCI	DO SECONDS FROM	
SYBYTH EFECT-HONE.						
WHISE EFFECT-EDE.						
COMPTET ACTION-DRANDEN.	action.					
PROPILESTON-TAP-A/E	ADS:-0349/DASSO/LE-4WO-01-114 INTEGRATED START SYSTEM REGULATOR	CONFORT TE-FTD/DFL	1140	1-2/PALC YES	7£8 100	*****
FAILURE MOCC-ERRATIC	FAILURE MOCC-ERRATIC OPERATION. ERRATIC OUTPUT OF 188 REGULATOR UPON PRESSURIZATION OF STARY TARKS.	LATOR UPON PRESSURE	LATION OF	STARY TAM	:	-
STSTON EFFCT-DRATIC	BYSTEN EFFECT-ERRATIC CREATION. MEASURE BURGE IN 188 SYSTEM.	17Dr.				
WASTER EFFECT ADE.						
CONECTIVE ACTION-LIBRIDIES.	190.91					
PROPALSION-MAC-A/B SOUTHAL	AES1-0242/02-401-00-85 188 PHEURATIC REGULATOR	Riest	930 910384	RE AME	VES ROCKETETNE MD	***
FAILURE MODE-DRIFT. FROM CR. MIMUS ES PSIG TO A MIMUS PREMATOR OPERATION.	FAILURE MODE-DRIFT. FROM TO DECOMDS THRU WEGO THE USD REGULATOR DISCHARGE PRESSURE DRIFTED OFF MOMINAL OF 600 PLUS OR MIMUS ES PSIG TO A MIGH OF 640 PSIG AND A LOM OF 560 PSIG. AT WEGO THE PRESSURE WAS 560 PSIG. ATTRIBUTED TO IMPROPER RESALATOR OPERATION.	LATOR DISCURRE PRES. 6. AT VECO THE PRES.	SOURE DRIF	TED OFF IN	DHIMI. OF 600 PLU	
STATEM EFFECT-HOLE.						
WAITE EFFET-HOR.						
CORRECTIVE ACTION-NOIC.						
Moru.sick-Ng-A/9 Kogza,	AESO-0747/P4-402-00-79 INTEGATED START SYSTEM REGULATOR, O-RING	PLIGHT	790 600919	14/ETR 167	YES ROCKETOTHE NO	 -
PAILUME MORE-OUT OF EXPE E BELAN TO INCREASE PRON ECAUSE IS ATTRIBUTED TO	FAILUME MODE-OUT OF EXPECTEDTEST VALUE- AT VERHIER ENGINE TAMES PRESSURIZATION, THE INS REGULATOR DISCHARGE PRESSUR E BEEAN TO INCREASE PROM 600 PEIS REACHING LOCK-UP PRESSURE OF 800 PSIS AT EIS SECONDS. RAWEE IS 575 TO 425 PSIS. TH ECANGE IS ATRIBUTED TO AN O-RIND MODIFICATION TO THE REGULATOR PISTON WHICH CAUSESERRATIC PISTON MONEMENT.	TANKS PRESSURIZATION OF 600 PSIG AT 218	SECONDS.	PANSE 18 IC PIRTON	1 DISCHARSE PRESS 179 10 425 PSIG. HOVEMENT.	9 Z
STORES CONTROL CONTRALICA	CH TOO MICH-PRESSURE AT THE 168 MANIFOLD WAS MICH BETWEEN BIG BECOMDS AND AECO WHEN PRESSURE	OLD IANG HIGH BETWEEN	1 810 agco	7 917 191	CO WER PRESSUR	
					PASE DOTE	T _E

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DIFFICUATIES REVIEW-PROPULSION SYSTEM-AIRSONE

			,			
8181EH 818-878TEH	TEST/REPORT MUBER FAILED COMPORENT MANE	DIF DATA BOURCE PART NUMBER	VEHICLE DATE DIF	817E	VEHICLE BITE PRI VENDOR HANE DATE DIF TIME DIF OTH VENDOR PART NO	
CTURNED TO THE PROPER LEWEL.	ัน					009830
WHICH EFFET-WAG.						
CORRECTIVE ACTION-UNKNOWN.						
PROPULSION-NAC-A/B GENERAL	AE60-6536/P1-402-00-60	Pusar	600 60070£	11.ETR H	NO ROCKETOVNE NO	16910
PAILURE MODE OUT OF EXPEC P TO TAKE FEED ON FIAL SE OF DETENIORATED STAR FIRS A ELECTRICAL SHORT.	PAILURE MODE OUT OF EXPECTED TEST VALUE. THRUST LEVEL OF BOCCSTER DETERIORATED AT INTERVALS WHEN BGG CYCLED FRON PUN P TO TANK FEED ON FIXT, SIDE AS RESULT OF INTERNITTENT SHOENT IN RELAY BOX OR HARNESS. BUSTAINES AND VENHIER PERFORMAN OR DETERIORATED STARTING AT 120 SECONDS FRON LACK OF CONTROL PRESEURE TO SUSTAINER LOK REGULATOR RESULTING FRON SAME ELECTRICAL SHORT.	COTEN DETENIONATED (IN RELAY BOX ON HAN! PRESEURE TO SCOTA!	AT INTERVAL NESS. SUSTA NER LOK REI	LA VAEN BE SINES AND PULATOR RE	G CYCLED FROM PURI VERNIER PERFORMAN BLR.TIME FROM BANE	
STSTER EFECT-OFERS AND	STREE LIFECT-OTTLE LIVE TOO LOW. DECREASE IN THRUST OF ALL EMINES.	SKINES.				
WOMICLE CFFECT-THINGHER TR.	VOXICLE CFFECT-TYPROFER TRAJECTORY. LONER THAN MONTHAL THRUST PERFORMANCE RESULTED IN LOW CUT OFF VELOCITY AND FAIL HE TO ATTAIN TAISET RANKE.	IT PERFORMANCE RESU	LTE 18 LG	4 CUT OF	VELOCITY AND FAIL	
CORRECTIVE ACTOR-HOLE.						
Propulsi OH-M2-A/B General	ACRO-0536794-402-00-62 ENGINE LON TANK PREBSURIZATION, CH ECK VALVE, REAL	nier	6ED 1	14/678 T	YES MICKETOWNE	
FAILURE MODE-INTERNAL LES CAME MISHER THAN PHEUMATIC	FAILUME HODE-INTERMIL LEAK. LOK IBOLATION CHECK YALVE LEAKED LOX INTO INS MANIPOLD WEN ENGINE LOX TANK PRESSURE BE CANE MISHER THAN PHEUMATIC REGULATOR OUTLET PHESSURE, WHICH OCCURS NORMALLY FOLLOMING BOODTER JETTISON.	CCURS NORMALLY FOLI	CONTING BOOK	ENGINE LOS	TANK PRESSURE BE BON.	
SYSTEM EFFECT-CONTANTINATION ATER THEMS	BYSTEM EFTECT-CONTANTIMITION. GOX LEAKED INTO 188 MANGFOLD AND EMFINE FUEL TANK. WENLIER FUEL SUPPLY PRESSURE 18 GRE ATER THAM LOX SUPPLY THE/LERY PREVENTING LOX FLOW INTO THE FUEL BYSTEM.	O EHEINE FUEL TANK D. BYSTEM.	· VERNIER S	VEL SUFF	T PRESSURE IS CAC	
VEHICLE EFFECT-NOIE.						
CORRECTIVE ACTION-RUBBER	CORRECTIVE ACTION-RUBBER DYNAMIC POPPET O-RING ON LOX INCLATION CHECK VALVE REPLACED WITH TEFLON DYNAMIC POPPET O-R MS.	TION CHECK VALVE RE	PLACED WITH	+ TEFLON B	PHANIC POPPET O-R	
CECTA SI CHI-ME-A/D	ACEO-OSEI/PI-401-00-54 ENGINE RELAY BOX PRE-NELEASE CUTOF P DESARH RELAY	PLIGHT	118009	11/ETR V	YED BO	

WEMICLE EFFECT-PREDATURE PROPULSION CUTOFF. EXTENDED MOLDBOWN TIME AEBULTED IN DECKELAED PROPELLANT WEIGHT, REBULTE ME IN INCREASED ACCELERATION, MAICH LED TO PREMATURE CUTOFF TIMES. BOOSTET CUTOFF MAS 8.8 SECONDS EARLY, BUSTAINER 18.7, AND VERMER 16.4 SECONDS. ND ARROHMAL EFFECT MAS NOTED ON THE WISSION.

PASE DOSD

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PAILURE MCCE-ERRATIC OPERATION. THE PRE-RELEAGE CUTOPP DISARN RELAY DROPPED OUT MOMENTARILY MITHIN 178 OPERATING CYC LE. THE CAUSE IS UNEMORN. THE FIRST DROPOUT OCCURRED ST -1.94, REACTIVATED AT -1.4 SECONDS, DROPPED OUT AGAIN AT -1.1 DEC. AND MEACTIVATED FINALLY AT -0.78 SECONDS.

BUBIEM CPTECT-CPERATION STARTS TOO LATE. MISSILE MOLODOM THE WAS ENTENDED FROM 4.85 SECONDS. TO 5.48 SECONDS.

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

	DIFFICULTIES REVIEW-PROPULSION STRICK-AINBOINE	LEICH BYETCH-AIRBOR	¥				
STATEN SUB-ATATEN	TESTREPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIP	11 E 01F	9 1 1 N	VEHICLE BITE PRI VENDOR MANE DATE DIP TIME DIP OTH VENDOR PART NO	
CORRECTIVE ACTION-UNKINOAM.	Ť						••••
Propulation-Me-A/B Wineral	LMSD-441512-E/P4-401-00-41 FUEL 37ART TAME PRESSURIZING VALVE	COUNTDOAN	490 490	10/618	÷ 9		03074
FAILURE MODE-LEAK-ENTERN VALVE IN THE 135 PACKAGE.	FAILURE MODE-LEAR-EKTERMAL. DURING K-1 DAY FUEL TAMEING, A PUEL LEAK WAS POUND AT THE FUEL START TANK PRESSURIZING ALVE IN THE 135 PACKASK.	PLEL LEAK WAS POUND	47 74 F.	CL STANT	7	PRESSURIZING	·
SYBIEN EFFET-NONE.							
WAICLE EFFET-COUNTDON	WENTELE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED.						
CORRECTIVE ACTION-FUEL N	WAS DETAINED AND A NEW PRESSURIZATION VALVE WAS INSTALLED.	H VALVE WAS INSTALL	ė				
PROPULS! CH-NAZ-A/B GENERAL	AESO-03EPPZ-403-00-96 O-ECK VALVE IN THE 185 MANIFOLD	Aler	960	12/ETR 165.0	4 Q	YES ROCKETDYNE	•
FAILURE MODE-LEAK INTERN	FAILURE HODE-LEAK INTERNAL. A LEAKY LOK ISOLATION CHECK VALVE IN THE INTEGRATED START SYSTEM MANIFOLD.	VE IN THE INTEGRATE	D START BY	STEH MAN	rab.		
SYSTEM EFFECT-CONTAMENA	SYSTEM EFFECT-CONTANTINATION OF 185 MANIFOLD WITH 608.						
CORRECTIVE ACTION-NOIC.	UMINOM.						
PROPULSION-MQ-A/B GENERAL	AESO-O322/PZ-403-00-38 ENGINE LOX TANK PRE3SURIZATION CHE CR. VALVE	7.1 4 1	360 6 00 5 80	169.8	£ 8	YES MOCKETOYNE NO	99 7301
The Print PEURIFICATION CO. 15.	AND MEN TO THE WESSURE WITH CHARD CON INTO 155 MANIFOLD WEN ENSINE LAW TANK MESSURE BECAME WITH THE OUTLE, WESSURE WITH COURS TOWNER FOLLOWING BOOSTER JETTISON.	O 155 NANIFOLD WEN	CHEINE	1308.	7683	E DECAME HIEM	
STATEM EFFECT-CONTANTMAT	SIVIEM EFFECT-CONTAMINATION. GOX LEAKED INTO THE MANIPOLD. WENNIER FUEL SUPPLY PRESSURE IS GREATER THAN LOK BUPPLY THEY THEY DAY FOR LOH PLOK INTO THE PAST THEY THEY PRESSURE IS GREATER THAN LOK BUPPLY	VERNICA FUCL SUPPLY	FRESSURE	18 GEAT	2 5	M LOK BUPPLY	
WATCLE EFFECT-NONE.							
CORRECTIVE ACTION-MATERI	CORECTIVE ACTION-MATERIAL OF LOW TANK ISOLATION CHECK VALVE POPPET O-RING CHANGED FROM RUBBER	E POPPET O-RING CHA	HEED FROM	RUBBER T	to rotion.	į	
PROPULSION-MAE-A/B BENERAL	F74856-/P4-4CO-02-E9 EMGINE NELAY BOX	COMPOSITE-J FACT	240 600£14	14/678	88		-
PAILURE MORE-OUT OF SPEC EMBER CUTOFF SIGNAL WAS TV NAMMAL FUEL CUTOFF.	SPECIFICATION. A CONTINUOUS SUSTAINER AND VERNIER CUTOFF SIGNAL MAS RECEIVED AFTER A SUIDANCE V MAS INSTRATED, MAJON PREVENTED DETERNINATION OF PROGRAMMER BACKUF VERNIER CUTOFF AND RANCE BAFE.	ND VERNIER CUTOFF S ATTON OF PROGRAMMER	PACKUP VE	ARCEI VED ANIEM CU	AF 100	A GUIDANCE V ND RANGE BAFE	
STATES EPTECT-INDECOLO B	IS BISCRETE SIGNALS. SUSTAINER AND VERNIER ENVINE CUTOFF SIGNALS WERE MELD IN BY FEEDBACK PROM	IER EMBINE CUTOFF &	IONALS NER		-	EEDBACK PROM	
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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PRI VENDOR NAME OTH VENDOR PART NO		. A 9100E MS		JD 10 INDICATE E Dentch that		- COOK 134:		WECLUDED RECE!	C DRINE NELAV				O.					PACE DOOR
WENICLE SITE PRI DATE DIF TIME DIF OTH		048 84761176	81/87C NO	CONSOLE FAIL F THE PHESSUM			34/ETR TES	PRECTLY AND P	ECEIVED AT TH			13/ETR TES	LEARS IS UNKN					
		040 STACE HE	360 391E07	ON THE FIREX OPERATION O			7 200 991029	NIRED INCO	TE LAS NOT R			7. 260 H91026	71 ON OF THE					
DIF DATA BOUNCE PART NUMBER		OLTS FROM THE SEC RELAY BOX.	CAPTIVE	THE BOOSTER COCLANT LIGHT ON THE PIREX CONSOLE FAILED TO INDICATE INSPECTION REVEALED PAULTY OPERATION OF THE PHESSURE SMITCH THAT .		AND WERRICK ENGIN	COSPOSITE-B FACT	IGINE RELAY BOK VAL	HER CUTOFF BIBCRE			COMPOSITE-PRO/DPL	PUEL BYBTEN. LOCA					
TEST/REPORT MUMBER FAILED COMPONENT NAME	THE WERHIER CUTOFF DISCRETE.	IMAS CAUSED BY A PEEDBACK OF 28 VOLTS FROM THE SECOND STACE HIDAS SATELLITE. A DIODE HAS PER THE PROGRAMMER AND THE DIGINE RELAY BOXI.	31 61 E/31 -406-85-36 341 TCH	710E.	TOPS PREMATURELY.	CORRECTIVE ACTION-REPLACED BOOSTER COCLANT PRESSURE SMITCH.	FTAGS40/F4-4CO-01-ED ENGINE RELAY BOK, MAINS	ATE. A HISHMEDRUD WERE AT THE DIGINE RELAY BOX WAS WIRED INCORRECTLY AND PRECLUDED RECEIP CUTOFF DISCRETE.	SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. A GUIDANCE SUSTAINER CUTOFF DISCRETE NAS NOT RECEIVED AT THE ENGINE RELAY Box due to incorrect wiring caused by a hismuscred wire.		ION OF WIRING ENGIN.	AZC-27-063/79-484-08-28	L. SEVEN LEAKS WERE POUND IN THE PLEL SYSTEM. LOCATION OF THE LEAKS IS LINKNESMA.			M.Dr was cornected.		
BUB-BTEN	THE UPPER STAGE FOLLOWING THE	CORRECTIVE ACTION-PROBLED MA	MOPULSION-IME-A/B	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. BOOSTER-COLANT FLOW AT BOOSTER CUTGET, POST TEST CTIVATES THE BOOSTER COOLANT CONSOLE LIGHT.	SYSTEM EFFECT-OFFIANTOM STOP	CORRECTIVE ACTION-REPLACE	GENERAL	FAILURE MOE-FAIL TO GPERATE. A MISMUREN T OF A GUIDANCE SUSTAINER CUTOFF DISCRETE.	SYSTEM EFFECT-IMPROPER DE BOX DAE TO INCORRECT MIRIN	WENTCLE EFFECT-NOME.	CORRECTIVE ACTION-CORRECTION	FROPULSION-NAZ-A/B	FAILURE MODE-LEAK-EXTERNAL.	BYBTEN CFFECT-NOME.	WHICH EFFET-HOME.	CORRECTIVE ACTION-THE PROBLEM		

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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	LEICH BYETEN-AIREORI	₩				_
37.3TEN 3.48- 57.5TEN	TESTAREPORT NUMBER FAILED COMPONENT MANE	DIF DATA BOUNCE PART MUNDER	VEHICLE SITE PPI DATE DIF TIME DIF UTH	114 DIF		VENDOR NAME VENDOR PART NO	
PROPULATON-MAE-A/B GENERAL	DABS/A1-401-00-10 RELAY, TIMER	Par	190	A-1/VIA 0.29	22		***
PAILURE MODE-PRENATURE OPERATION-ALL ENGI TOFF TIMER, WHICH MERE BET FOR 10 SECONDS.	FAILURE HODE-PRENATURE OPERATION-ALL EMBINES BRUTDOM AT 8-25 SECONDS DUE TO CARLY ACTIVATION OF FAILURE RELEASE CU OFF TIMER, WHICH WERE BET FOR 10 SECONDS.	ES SECONOS OUE TO E	IRLY ACTIV	ATION OF	PAIC M	no gerevet co	
STRICH CFFECT-OFERATION	ITION STOPS PREMATURELY. PROPUZION BYSTEM WAS BRUTDOM APPROXIMATELY 2 BECONDS EARLIER THAN PLAN	OF NAS BRUTDOM APPR	DAT MATELY	2 SECOND	S EARLI	IR THAN PLAN	
WHICLE EFFECT-HOME. PR	. PREDATURE BOOSTER AND SUBTAINEN EMBING CUTOFF WAS ENFECTED DUE TO EMRATIC FAILURE RELEASE CUTO TEST WAS CONSIDERED SATINFACTORY.	CUTATO WAS EXPECTE	0 DUE 70	MAATIC F	ATLURE !	HLEASE CUTO	
CORRECTIVE ACTION-UNKNOWN.	į				}		
PROPULSION-IME-A/A GENERAL	DANS/AE-AND-DA-1E GAS GENERATOR IGNITER LINES, UNBIL ICAL, CONNECTOR	CORPORT TE-PRO/DPL	120 990904	A-2.ATR	9 9		2
PAILUNE MODE-FAIL TO OF NITTR LINE A CONTINUITY	FAILURE MODE-FAIL TO OPERANE AT PRESCRIBED TIME, DURING CON MITER LINES CONTINUITY CHECK BUE TO A LEGGE STOOS UNBILICAL.	DURING CONSIT REQUIREE A FAIL INDICATION WAS RECEIVED ON THE 66 16 UMBILICAL.	110101	e i	03 VI	91 75 St 16	
SYSTEM CFFECT-OPERATION STOP PREDMINELY.	N 398F FEDMINELY.						
WENTELE EFFECT-COMIT	VEHICLE EFFECT-COMIT BENEDICE AND TEST ABORTED.						
CORRECTIVE ACTION-NUMBER	O. O. C.						+
PROPLESSON-ME-A/B BENERAL	## -44 1 - 96 -02 #### TATOR	CAPTIVE	20 300004	3£/37C 1£.8	2 2		\$6000
FAILURE MODE-PREDATIME OFERATION-CHART CON	FAILUNE MODE-PREJUATU <mark>NE GMERÁTICH-</mark> CHART CBAERNER. MISIMTERPRETED FIRBOP START TANK PHELMATIC REGULATUR CUTLET. THIS Easkredent has no byne smersylf regulrédeur.	RETED FIRESP START	ANK PACUA	ATIC REG	O ROTAS	WTLET. THIS	
SYSTEM EFFECT-OPERATION	SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COSEAVER CUTOFF						
MAICLE EFFECT-PREMIURE PROPULATOR CUTOFF.	AL PROPULATON CUTOFF.						
CORRECTIVE ACTION-THE VANCT	MICT CHAT COSCAVERS.						
PROPULBION-NAE-A/B SENERAL	45C-27-050/77-402-00-03	7.87	2 20	13/CTR -210	ž š		
FAILURE MORT-LEAR, ENSTER OF PARTY OF A SEARCH AT RESCONDERT.	ENGLY, SEVERAL GREEK FALLONS OF FUEL 1415 TRAPPED IN THE LINE BETHEEN THE SHOWN AND AIRBORNE FILL. A MENDANAL GREEK THAT BIS NOT PROVIDE FOR CYCLING THE VALVE AFTER FUEL TANSTHD. THIS FUEL	NAPPED IN THE LINE (DETHEEN TH WALVE AFT	E SACURE TR PUEL	AND ALL	MORNE FILL A	
oreston cover - man.							

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		AND STATEM- AT RECAME	ATOM SYSTEM-ATROOM	₩.			
-	9961 Mr 11	DIFFICALIES REVIEW-THUS	DIF DATA BOURCE	MENICIE 1.15 PIE	VENICLE BITE PRI	PRI VENDOR PART NO	
	\$151EN \$16-875TEN	TESTARPORT MUNELH FAILED COMPONENT MANE	PART HAMBER		010017		• • • • • • • • • • • • • • • • • • • •
A I K	ICLE EFFECT-NOM. THE VALVE CAUSED AN EXPLO	VEHICLE EFFECT-NOME. THE COMBINATION OF THIS FUEL WITH LIGUID ONYGEN LEARING WICH MOTION. THERE MAS NO APPRARENT DEMANDED AND VEHICLE EFFECT-NOME. THE COMBINATION OF THE MISSILE AT 0.8 SECOND APTER 8-10CH MOTION. THERE WAS NO APPRARENT DEMANDED ON THE CONTRACT OF THE EXPLOSION.	10 OXYGEN LEANING SECOND AFTER E-1W	CH MOTION.	THERE MAS	NO APPRAÉNT DIMEN DAATHING OF PUEL	
2 8	CORRECTIVE ACTION-THE SE	SEGUENCING PROCEDURE WAS REVISED TO CORRECT TANKING. THE GROUND AND AIRBORNE VALVES AFTER FUEL TANKING. THE GROUND AND AIRBORNE VALVES AFTER FUEL TANKING.	FUEL TANKING.	Q.	13/618	76.	217200
PROPULS	OH-14.2-4.78	AZC-27-050/P3-402-00-08 A/B LIBUID OKYCEN FILL AND DRAIN V A/YE	>	till a son	AND DRAIM	VALVE POSSIBLY CAUS	
ž e	FAILURE MODE-FAIL TO OF	FAILUME MODE-FAIL TO CHERATE AT PRESCRIBED TIME: OPEN CONDITION OF LIGHTON DAY THE TIME OF DISCORDECT CAUSED INME.	DITION OF LIGUID OF BETTER THE WALVE BIARTER	A1 14	11 of 01	KONECT CAUND 110K	
* i	VSTEN EFFECT-DEPLETICA ATE 36 NERCENT REDUCT	SYSTEM EFFECT-DEPLETION OF LIADID SUPPLY. LEARNAGE. SYSTEM EFFECT-DEPLETION IN BE ENGINE PERFORMANCE. DIATE 30 PERCENT REDUCTION IN BE ENGINE SHUTDOMN, ENGINE COMPARTMENT EXPLOSION AND BOOGITE BHUTDOMN AT 26 MECONDS.	COPARTIENT EXPLOS	104 AM PC	OBTER BHUT	DOMEN AT ES DÉCOMOS A	
* 9	MENTALE DESTRUCT IN COMMENTALE DESTRUCT IN	IN RESPONSE TO PLATOR SHAFT WILL BE PARAICATED OF STEEL INSTEAD OF ALUMINAN STATES SHALL BE PARAICATED OF STEEL INSTEAD OF ALUMINAN STATES SHALL	CATES OF STEEL INS	TEAD OF ALL	PACTORY	TES ROCKETOVICE	
0 83	PULSION-WE-A/B	2N-7-654/FC-3CO-06-05 ZN-7-654/FC-3CO-06-05 Epsine Relat Box-86318708 Epsine Relat Box-86318708 Epsine Relate Could NOT BE RESET.	COMPOSE TE-FACTORY	990150 990150 6114E\$ COMD	0 ed	ESCT.	
	FAILURE WODE-FAIL TO OPENATE AT PRESENT START. SYSTEM EFFECT-OPENATION DEES NOT START. WENICLE EFFECT-COMPOSITE DELAYED.	FAILURE WORE-FAIL TO OPERATE AT PRESENT. SYSTEM EFFECT-CHERATION DOES NOT START. WHICLE EFFECT-COMPOSITE DELAYED. WENICLE EFFECT-COMPOSITE DELAYED.	EVIATE THIS PROBLEM WE	1. THE REM 2.TAGE BELI	ME WORD O	REWORK WOULD CONSIST OF ADDING A 15 BELOM 2.0 VOC AND GUARANTEE RESET.	• .
	CORRECTIVE ACTION-EN Own RESISTOR IN LIEU PROPULSION-WAE-A/B	OF A 10 OWN HEALSTON WHICH MANAGE A 10 OWN HEALSTON TO BOX	COMPOST TE-FACTORY	210A7 7C	7C FACT	DAY YES ROCKETOVIE	0
1	FAILURE MODE-FAIL T	MENAL. FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. BOOSTER RESET WAS NOT INDICATED. FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. BOOSTER RESET OID NOT OCCUR. SYSTEM EPTECT-OFFRATION DOES NOT START. ENLATED ON RECONDULED.	TER RESET WAS NOT I	100 CATES.			
1	MENICLE EFFECT-COM	WHICH EFFET-COMPON OR CONTINUED CONFECTIVE ACTION-VALUEDIN.				HVA	100 AV
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87.8.7EH 8.05-8787EH	PAILED COMPORNT MANE	DIF DATA SOURCE PART NUMBER	VEHICLE BITE DATE OF	11 THE 01	Z S	VENDOR MANE VENDOR PART NO	
PROPULSION-NA3-A/B BOOATER	/A1-410-01-209 B-mul	COUNTDOM	99120	A1 /VTR	ភូមិ		***
FAILURE MOE-LEAN EXTERN	MAL. FUEL FOUND LEAKING AT 8-MUT ON IGNITOR FUEL VALVE.	I IGHITOR PUEL VALVE.					
STATEN EFFECT-NOG.							
WENCLE EFFECT-COUNTDOM DELAYED.	I DELAYED.						
CORRECTIVE ACTION-8-NLT	TI GKTINED.						
PROPULSION-NA3-A/E BOOSTER	GD/A-APZ64-087/61-602-00-03 B1 MAIN FUEL VALVE	7.81.5	¥ 4040s	OB 172 AT	ž S	COSTECNT VED ROCKETDINE R NO	:
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED T E MOST PROBABLE CAUSE TO BE THE VALVE STICKING.	OPERATE AT PRESCRIBED TINE. BI HAIN PUEL VALVE OPENED 0.95 SECONDS LATE.	N PUEL VALVE OPENED D	360 SECORE	s LATE.	76971	TESTS DETERMINED TH	
STSTEM EFFECT-OPERATION STARTED PROPERLY.	STARTS TOO LATE. THE MAIN PUEL VALVE OPENED TOO LATE POR BY ENGINE TO START. THE BE ENGINE	LVE OPENED TOO LATE F	OR 81 EMS	NE 10 81	ART.	THE BE ENGINE	
VEHICLE EFFECT-LOSS OF V	VEHICLE INTEGRITY MEALANCED THRUS	UNBALANCED THRUST CAUSED THE VEHICLE TO TOPPLE PROH THE LAUNCHER AND SELF	to topped	FROM TH	3	ACHER AND BELF	
CORRECTIVE ACTION-ALL MA ENVICE TO BE STICKING, NO THE VALVE FAZLURE,	MIN FUEL VALVES WERE RECALLED AND RENCHED BECAUSE TESTING DISCOVERED OTHER VALVES IN LONG S NOCKETOTNE REPORT MAGER R-ED71-3EP CONTAINS THE RESULTS OF INVESTIGATIONS INTO THE CAUSES OF	RENCHED BECAUSE TEST CONTAINS THE RESULTS	INC DISCON	ERED OTH	2 X	LVES IN LONG S THE CAUSES OF	
PROPULS I CHEMAS-A/B BOOKTER	DI FUEL VALVE LINE	n. ient	456	F-£/MR 0	ភូទ	YES ROCKETOVNE ND	•
FAILURE HODE-FAIL TO OPE HAS CLOSSED. THE MATERIA	PAILUNE HODE-FAIL TO OPGRATE AT PRESCRIBED TING. BY MAIN PLEL VALVE FAILED TO OPEN BECAUSE THE VALVE ACTUATION LING WAS CLOCCED. THE MATERIAL WAS DETERNINED TO BE HYPERCOL PROM PREVIOUS TESTS OF THE EMAINE.	THEL VALVE FATLED TO I	OPEN BECAL THE CHESS	36 THE V.	ALVE	ACTUATION LINE	
SYSTEM EFFECT-OPERATION	DOES NOT START. SE ENGINE DID NOT ACVIEVE NAINSTAGE OPERATION.	ACHIEVE MAINSTAGE OF	TRATION.				
WENICLE EFFECT-LOSS OF M	WENICLE INTEGRITY. THE WENICLE EXPLODED AT LIFTGIF.	COED AT LIFTOTF.					
CORRECTIVE ACTION-NEW PU	CORRECTIVE ACTION-NEW PURGING PROCEDURES NERE INITIATED, AND UPOR COMPLETION OF ACCEPTANCE TESTING THE MAIN FUEL LYE ACTUATION LINE OF EACH ENGINE WAS TO BE REPLACED WITH A NEW LINE.	IND UPOK COMPLETION OF INEW LINE.	P ACCEPTAN	CE TEST	£	E MAIN FUEL VA	
PROPULS10N-MAS-A/8 B00872R	AA63-0000/PI-60H-01-135 VOLVTE BLEED BOSS ELBOM BEALE	CONFOST 7E-FR8/10FL	1356	11/018	58	ROCKE TO YNE 354646	
FAILURE MODE-LEAR EXTERNAL. A BEZPING PUEL LEAN EP IRPOGADA) AFTER THE PIROT PUEL TANKING TEST.	Pailung moog-lear extermal. A bezping pugl lear imb dibcovered at the be publ pump volute bleed bobb elbom beals in D'impleab) after the pindt puel tannimb tebt.	TRED AT THE BE FUEL !	Pune VOLUT	1 1100	8	ELDON SEALS OR	

GENERAL DYNAHICS CONVAIR BEVISEON

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DIFFICULTIES REVIEW-PROPULSION STRICK-AIRBORNE

3787EM 818-8787EM	TEST/REPORT HUMBER	DIF DATA SOURCE PART NUMBER	VEHICLE SITE DATE DATE DATE	119E D1F	PAT VENDOR HANE OTH VENDOR PART NO	A b	
STATEM EFFECT-NONG.							
WONICLE EFFECT-HOME							
CORRECTIVE ACTION-THE AND33-4C	833-4C STALS WERE REPLACED.						
Propulsion-M3-A/B AC-45-4	AC-43-0004/82-607-810-79 81 648 SCHERATOR LON POPET	CAPTIVE	75F 640£06	96/8VC 0	5 Q	<u> </u>	•
PAILURE HODE-INTERNAL LEAK. THE BI 86 LOK INJECTION PREFEURE INDICATED LEAKAGE PAST THE POPPET DURING SPIN CHARGE ? Peration,	. Bt BB LOK INJECTION PREFER	AT INDICATED LEAKAGE	. exer the	POPPET DU	III PEIN CHA	, ,	
SYSTEM EFFECT-NONE.							
WHICH EFFET-HOR.							
CORRECTIVE ACTION-NOVE.							
PROPULSZON-1443-A78 ADJ62-4 BOOSTER LUBE OI	AD JOST -0010/01-502-00-64	P.1647	641 E10	0817-174 NO 18 NO	NO ROCKETOVNE NO		•••
FAILURE MODE-STRUCTURAL. THE BE LUBE OIL TANK FILL AND DRAIN SISCONECT FITTING MAS OFF AS A RESULT OF THE PRESSURE PALSE CAUSING THE BE DIGINE BOOT TO MIT THE FITTING.	THE BE LUBE OIL TANK FILL AND DRAIN DISCONNECT FITTING WAS SUSPECTED TO BE DAMMED AT LIFT.	AIN DISCONECT FIFTIS E BOOF TO HIT THE FILE	ic in sust	ECTED 10	ME DAMMAGED AT	<u> </u>	
BYSTEN EFFECT-DEPLETION OF LIBUID SUPPLY IN THE GEAR IN THE TURBOPUM AND FAILURE OF THE ENGINE.	OF LIBUID SUPPLY IN THE BE LUBE OIL TANK OCCURRED. THIS RESULTED IN FAILURE OF THE A PINION D FAILURE OF THE DIGING.	IL TANK OCCURRED. THI	18 REBULTED	IN FAILU	16 OF THE A P1.	8	
WEMICLE EFFECT-LOSS OF WEMICLE STABILITY FOLLCHED BY LOSS OF INTEGRITY AS A RESULT OF SE EMEINE SMUTDOMS.	STABILITY FOLLOWED BY LOSS	OF INTEGRITY AS A RE	SMLT OF 88	CHEINE S	WTDOMM.		
CORRECTIVE ACTION-NETHOD OF ATTACK	OF ATTACHING BOOTS TO THE ENGINE WAS INPROVED PRESSURE PULSE MACHITURE WAS REDUCED BY CHAN Existics.	INS THPROVED PRESSUR	is pure m	GMI TUDE N	18 MEDUCED BY	CHAR	
PROPULSION-MAS-A/B AOURE-C	AQ162-0047/71-804-00-00 FLEL YOLVIE TEE LINE	соипром	# 00 E	11.76.18	7£8	-	622940
FAILURE MODE-LEAR-EXTERNAL, FUEL	L VOLUTE TEE TO PUEL ISMITTE VALVE LINE FOUND LEAKINS PRICE TO START OF COUNTDOMS.	I AVEAE CINE MOND F	EAKING PRI	MT 0 87A	17 OF COUNTDOM	<u> </u>	
BYBTEN EFFECT-NO.C.							
WEHILLE EFFECT-COUNTDOMN DELAYED. START OF COUNTDOMN DELA B ALBO REPLACED BURING DELAY BECAUSE OF BLOW COMMUNITORS.	DELAYED. START OF COUNTDOMN DELAYED TO REPLACE FUEL WOLUTE TEE. RF FACKAGES ND. 1 AND NO.	TO TO REPLICE PUEL Y	מיטוב זכב.	RF PACKA	fs 10, 1 Alb	ġ	
CORRECTIVE ACTION-REPLACED LEAGING	146 7GC.						
					PAR BESS		

GENERAL DYNAMIUS CONVAIR DIVIBION

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DIFFICULTIES REVIEW-PROPULATOR AVAIRM-AIRBORNE

8797EM 845-8787EM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART HUBER	VEHICLE BITE DATE DATE	114 DIF	- Z	VENDOR NAME VENDOR PART NO	
MOPULSI ON-143-478 BOOS TER	AC-62-0033/32-602-A3-75 B1 448 GEMENATOR LON POPPET	CAPTIVE	756	3£/87C	00 00 00 00 00 00 00 00 00 00 00 00 00	RO BOTETS	
FAILURE MOSE-INTERNAL LA	LEAK. YEST BATA INDICATED A MINOR HOT GAS LEAK PAST THE BL GG LOK POPPET PRICE TO IGNITION.	GAS LEAR PAST THE	35 35 16	POPET N	01 8 0 10	16411104.	
STATEN CFFECT-NOIC.							
WENTELE EFFECT-NOICE.							
CORRECTIVE ACTION-THE &	SAS SEDETATOR WAS REDIONED AND LEAK CHECKED, FOUND ACCEPTABLE, AND REINSTALLED.	ECKED, POMB ACCEPT.	ABLE, AND	REINSTALL	ė.		
PROTUL SI CHE HAS-A/B BOOSTER	AC-02-0034/32-401-A2-79	CAPTIVE	75F @£0703	36/8 7C	7E8 ROC 80 834	ROCKETDYNE 85440-6	*2****
FAILURE HODE-OUT OF TOLEBANCE. D IN ENTRAPPED 648 THORIGHY BLOM ER START SERVENCE.	FAILURE MODE-OUT OF TOLEBAMCE. MODIFICATION TO LOM VALVE (MAS-230) INCLUDED AN EMLARGED SPRING CAVITY MICH RESULTE D IN ENTRAPPED GAS THEREBY SLOMME THE RESPONSE OF THE VALVE. SLOW BY LOM VALVE OPENING RESULTED IN A MARGINAL BOOST EN START SEGUENCE.	M3-230) INCLUDED AN	ENLARCED OPENING R	ENLTD	IN A MAR	ICH REBULTE GINAL BOOST	
SYSTEM EFFECT-OFERATION	SYSTEM EFFECT-OFENATION TOO LONG. BLOW BE LOK VALVE OFENING RESULTED IN A MARSIML BOOSTER START SERUCKE.	RESULTED IN A MARS	1ML 80087	CA START	MENCHE	ن	
WHICLE OFFICT-NOIC.							
CORRECTIVE ACTION-MODIF	FICATION WAS REMOVED AND THE CRISINAL MARDMARE RE-INSTALLED.	HARDINAE RE-INSTAL	ė.				
PROPULBICH-M3-A/U BOOSTER	AAGE-0074/P1-98N-04-07 BE FUEL PREVALVE	COMPOST TE-PRO/DPL E7-E1E00-9	77 6£0£19	11/278	7£8		***************************************
PATLURE MODE-LEAR ENTER	RIMI. AFTER TANKING TEST, FUEL WAS FOIND IN PLASTIC BELLONS COVER ON BE FUEL PREVALVE.	HAD IN PLANTIC BELL	OME CONTR	2 2 3	E MEVA	LM.	
STSTEN EFFECT-NOIC.							
VENICLE OFFECT-NOIC.							
CORRECTIVE ACTION-VALVE	I WAS IR TO AND REPLACED.						
PROPULATON-NAS-A/B	AESI-1231/P3-803-00-38 648 6ENERATOR, ORIFICE	P.1941	346 911219	13/CTR -1.37	VES 800	YES ROCKETOYNE YES	
FAILURE MODE-OUT OF BPEC F INCORRECT CRIFICE BIZE.	FAILUME MODE-OUT OF SPECIFICATION. GAS SEMEMATOR RETROFIT (MAICH REQUIRED RE-ORIFICINS). RESULTED IN INSTALLATION O "INCORRECT ORIFICE SIJE.	MICH REGUIND RE-D	RIFICING) .	ACOUL TE	# . # .	TALLATION O	
STATES EPPECT-OPERATION	I TOO LOW. LOW BOOKTER EMAINE PERFORMANCE 1831, REBULTING FROM INCORRECT PROFELLANT FLOWS.	AMER 1817. RESULTIN	* FROM 1MC	CRRECT A	OPELLAN	if Proms.	
VENTEL BPTKT-LATE BOD PET COMING PERTURBANCEL	WANTELS SPTET-LATE BODGETER CUTGFT. BODGETER CUTGFF ING 3.3 SECONDS LATER THAN PLANNED (AS A RESULT OF LOW BODGES). 5) ENGINE PERFORMACEL: OFFERINCE MADE NECESSARY CORRECTIONS DURING SOUTHINER PRACE FOR PROPER INPACT.	SECONDO LATER THAN	PLANEED CA	A A RESU	9 t 9 t 9 t 9 t 9 t 9 t 9 t 9 t 9 t 9 t	* Becarts	

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SENERAL DYNAMICS CONVAIR DIVISION

	DIFF." CS REVIEW-PROPU	CS REVIEW-PROPULATON STATEM-AIRBORNE	₩ .				
272TEN 346-273TEN	TEST TEPCAP NUMBER FALLED COMPOMENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	VENICLE BITE PRI	9 0 2 2 2	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NOME, N	NO CORRECTIVE ACTION REQUIRED.						641113
PROPULATOR-MAS-A/B BODATER	ACC1-1231/P3-603-00-36 CAS CENERATOR	P.1607	366	13/ETR -1.37	ŠŠ	VEB ROCKETDVIC TEB	99 7 3 TE
FALLURE MODE-OUT OF TOLEN	FAILURE MODE-OUT OF TOLEHANCE. UNDETECTED RESTRICTION IN GAS GENERATOR PROPELLANT FEED SYSTEM.	is eenegator frofel	0334 TWA	118 TD1.			
BYATCH EFFECT-OFERATION TO	TOO LOW. LCM BOORTER ENGINE PERFORMINCE (B1), REBULTING PROM INCORRECT PROPELLANT PLOMS.	ANCE (91). RESULTIN	FROM SM	CORRECT P	8		
1) ENGINE PERFORMANCE. GUI	CORRECTIVE ACTIONS NOT A RESULT OF LONG MAN SON ACCORD LATER THAN PLATED AS A RESULT OF LOW BOOSTER. CORRECTIVE ACTIONS NO CORRECTIVE ACTION SERVING BUSTAINER PLANE FOR PROPER TIPACT.	ACCHOS LATER THAN KRING BUSTAINER PHA		PER TIPAC			
	AA61-0212/P3-802-00-34	социтося	34 911810	15	20		37236
FAILURE MODE-OUT OF SPECI-	FAILURE HODE-OUT OF SPECIFICATION. BOOSTER LOX PURP INLET TOPERATURE EXCEDED REDLINE SPECIFICATION DURING LOX ALU . TRANSFER. TEMERATURE HAS -275 DEG. F. WICHE REDLINE TOPP IN -200 DEG F MAK.	DPERATURE EXCEDED 18 -EGO DEG F MAX.	MDL IN	MOFICA	8	DURING LOX SLU	
SYATEM EFFECT-MOME.							
WENICLE EFFECT-COUNTDOMN DELAYED. HOLD CALLED A DURING THIS HOLD RESULTED IN COUNTDOMN ABORT.	DELAYED. HOLD CALLED AB REDULT OF HIGH LOK PURP INLET TEMP. POLER CHANGGOVER BATTCH PROBLE ED IN COUNTEDIN ABORT.	HIGH LOR PURP INLEY	15e. R	CANCEL	5	BATTCH PROBLE	
CORRECTIVE ACTION-NOWE.							
PROPULS (OH-NA)-A/B BOOS TER	AC61-0103/31-609-10-01 B1 30LID PROFELLANT GAS GENERATOR	CAPTIVE	911119	81/8YC 5.6	2 2	ROCKETOVIC	***************************************
FAILURE MODE-FAIL DURING O	OPCAATION. THE BI BOLID PROPELLANT GAS GENERATOR EXPLODED AT IGNITION. BOME PRAGMENTS MERE INCELLE CAUSING NINGE WISSILE DAMAGE.	SAS SENEDATOR EXPL E.	10 A 43 44	MITION. 1	¥	PRACHENTS MERE	
BYBIEN EFFECT-OPERATION DO	SYSTEM EFFECT-OPERATION DOES NOT START, BE 648 GENERATOR TEMPERATURE, AS MONITORED BY R 18 NOT INCREASE TO THE EMPECTED LEVEL, DATA INDICATED THAT THE BE EMAINE FAILED TO FIRE.	TEPERATURE, AS MONITORED BY REDLINE MEASUREDENT PLYSST. THE BS EMBINE FAILED TO FIRE.	MED BY M	DLINE NE.	Out of	ENT P17131. 0	
WATCLE EPPECT-PREMATURE I	PROPALATON CUTOFF. EMBINE OPERATION WAS TERMINATED PREMATURELY AT 5.8 RECORDS BY THE MEDIENT P1715T.	H WAS TERHINATED PR	DISA TVÆKKI. V	A7 5.0 %	8	8 77E CMART	
CCAMPOTIVE ACTION-JUNECATION OF THE BOLLD I	MENDLLANT CAS	SENERATOR CASE REVEALED THAT INITIATED BY SOCRETBYNE AS A	TANT OF A A A	THE CASE WALL THICKNESS RESULT OF THIS PAILURE.	110	HORNESS MAS B PAILWER.	
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GENERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE

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					2 2					•• 78.						`•		•
VEHICLE BITE PAI YENDON MANE.	1F 8-1/87C VES MOCKETDYME 011119 9.0 NO 050082-21	MEAR CABING OF THE BOLID PROPELLINT GAS GENERATOR BLEW OUT AT 1641TION. POASIBLY CAUSE CHINESS.	BYBYTCH EFFECT-EIFFOBLON. WONICLE EFFECT-FREMATURE PROPULBION CUTOFF, OBSENVED CUTOFF SHEN BY GAS GENERATOR CORBUSTOR TEMPERATURE MEASUREMENT ENCEDED AFELIAC.		1F 8-1/81C TES NAA ROCKETOYNE (ALUE, AN ABRIDBALLY RAPID OPENING OF THE MAIN FUEL VALVES OCCURED AT ENGINE START, I THYO THE THRE ASSEMILY FROM THE MYPERGOL CONTAINER TO THE FUEL VALVE AND THE VALVE A THE MOISTURE, THE RESULTANT OPENICAL REACTION CREATES AN OVERPRESSURIZATION, WHICH O 18T.	AUDE OF THE BAPID OPCHING.			24E F/VTR YES 01.0962 F/VTR YES	FAILURE MODE-FAIL DIRING CIPZRATICH. ENGINE SROAD POLEN RED INDICATION DUE TO FAILURE OF BOOSTER NO 1 SOLID PROFELL. NT 6 9 MEATER.				BAC PANTA YES	THE LEAST PARTICIPATE ALL ACRESSIVE THE THIRD TO WANTE PARTICIPATE		
DIP DATA BOURCE PART HUNGER	CAPTI VE		2029 949 14 ADR.		CAPTIVE	MING OF THE MIN FI THE HYPERGOL CONTA ONEMICAL REACTION	ESSURE DROPPED BEC.			CORPOSI TE -FISI/DPL	INDICATION DUE TO				COPTOS 78 - PRACTICA	Es confessis glads mg agostan s massinuly do not ucc. Papelole shi		
TESTARPORT NUMBER FALLED COMPONENT NAME	AC-62-0008/31-808-10-01 B1 90.19 PROFILLANT 6AS SENERATOR	THE MEAN CASING OF THE NOLID PROPE L THICKNEAS.	MOPULATOR CUTOFF. CONSTINUED CUTOFF	ź	AC-41-0094/81-609-A6-01	5 9	STATEM EFFECT-OFFRATION TOO LOW. THE PULL FLUE DISCURRE PRESSURE DROFFED SECAUSE OF THE RAFID OFFRING			AD61-0293/Ba997/01-940-04-64 MGATER: 9746	OPERATION. ENGINE SHOUND FOLCH NED	DCES MOT START.	SELATED.	RPLACED.	44-00-00-00-00-00-00-00-00-00-00-00-00-0	1000	Land outportunity.	
8731EH 848-8-8	MOTULE 1 OF- 1443-4.75 8000 TER	PATILINE MODE-ATRUCTURAL. THE MEAN CA. D BY GUT OF TOLERANCE WALL THICKNESS.	NENCE CTTCT-REMINE WHICE CTTCT-MEMINE EXCEDES NEW INC.	CORECTIVE ACTION-MAINDAN.	MOPULSION-M3-A/B BOOKITS	FAILURE MODE-OUT OF EXPECTED V T 18 BELIEVED THAT MOLATURE GOT CTUATOR. MHEN HYPERGOL CONTACTS PENS THE MAIN FUEL VALVE TOO PA	SYSTEM EFFECT-OFERATION	VEHICLE EFFECT-NOIC.	CORRECTIVE ACTION-UNKNOWN.	PROPULSION-MAS-A/B	FAILURE MODE-FAIL DURING ANT G G HEATER.	SVSTEM BPPECT-OPENATION DOES MAY STANT.	WINTER EPPECT-COUNTRIES SELAT	CONTRACTOR ACTION-SCATES REPLY	Anche Cross-servicing	PATILIDE TOTOC-ZASE GARRES GARATION. AT 6	PROCE STATE OF STREET ASSESSED.	

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SCHERAL DYNAWICS CONVAIR DIVISION

11 JUN 11000

DIFFICULTIES REVIEW-PROPULATON STATEM-AIRBORNE

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TEST/REPORT MUMBER FAILED COMPORENT MANE
WHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDUED.
AC-61-0090/81-604-84-01 Taidi, LUBE Oil
CITED TEST VALUE, THE BI HIBM PRESSURE LUBE OIL RISE TIME, WORNEL RISE WAS NOTED POLLOATING THE
AC-61-0090/11-604-A4-01 Thetus Coauden
PAILURE HODE-OUT OF EXPECTED TEST VALUE. BY THRUST HAS CALCILATED PROH CHANCER PRESSURE DATA TO BE 8.3 PERCENT BELO I MONINAL THRUST OF 165,000 POUNDS.
AD61-0252/DA596/D1-940-03-24
OPERATION. ENGINE MOUND FOMER FAIL INDICATION DUE TO FAILURE OF BOOATER NO 1 SOLID PROPEL
LESTICH HETLETLITT DEL 10 PRESDICE OF COTTAFTED MART IN THE THEOPEN FUEL VOLUM

GENERAL DYNAMICS CONVAIR DEVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

8787EH 818-8-818	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE	VEHICLE DATE DIP	817E 11ME DIF	PRI VENDOR NAME OTH VENDOR PART NO	
BYBTEM EFFECT-OMERATION B	ON STORS PRENATURELY- BOCSTER EMAINE ROUGH START AND SUBSESUENT ROUGH COMBUSTION CUTOFF BY BE	OUCH BTART AND BUBB	EBUENT ROL	- COB UB	104 CUTOFF BY BE	***
WENICLE EFFECT-PREMATURE BOOSTER ENGINE CUTOFF.	BOOSTER ENGINE CUTOFF.					
CORRECTIVE ACTION-17 MAS	WAS RECOMMINDED BY ROCKETBYING THAT PLAMP VOLUTE BLEEDS BE INSTALLED PRIOR TO ALL HOT PIRIMES.	P VOLUTE BLEEDS BE	INBTALLED	7 TO 10 1	LL NOT PIRINGS.	
PROPULSION-143-A/B BOOSTER	AB-81-0014/14-610-44 B1 GA8 GENERATOR	CAPTINE	1-46	7	5 0	9000
FAILURE MODE-STRUCTURAL.	FAILUNE HODE-STRUCTURAL, POST-TEST INSPECTION REVEALED MARPINS IN THE VICINITY OF ONE OF THE BOSSES. REMOVAL OF THE GENERALD THAT SECTION OF THE BAPPLE WAS HISSING.	ING IN THE VICINITY	5 30 5	716 80886	S. REMOVAL OF THE	
SYSTEM EFFECT-NOME. GVIDE	SVIDENCE OF A HOT SPOT HAS FOUND IN ONE AREA OF THE CASE.	ANEA OF THE CASE.				
WENICLE EFFECT-HOME.						
CORRECTIVE ACTION-REPLACED 81 GAS EDERATOR.	D 61 CAS CDERATOR.					
PROPULSION-M3-A/B BOOSTER	LOX FLEX HOME.	CONFOST TE-FIB/DAL	975 815798	PALC/1-E YES	763	94
FAILURE MODE-LEAR EXTERNA	FAILURE MODE-LEAK EKTERNAL IN THE BOODTER LOK REBULATOR HOBE.	ن				
BYSTEN EFFECT-LON TENFENA	FEATURE DIVINGEDS.					
WENICLE EFFECT-COUNTDOWN ABORTED.	ABORTED.					
CORRECTIVE ACTION-LANGUAM.	•					
PROPULSION-MS-A/B	A0-61-0011/14-005-E1 BOONTER EMEINE NO. 1	CAPTINE	1-4F 019019	1.03	7E3 HO	83mec
FAILURE MODE-FAIL DURING	FAILURE MODE-FAIL DURING OPERATION ENCESSINE ACCELERATION LEVELS ON SCOATER AG. 1 NOTED AT 1.03 MCCOMDS AFTER 16MIT ON.	EVELS ON BOOSTER NO	. 1 MOTES	A7 1.08 M	COMDS APTER LEMET	
SYSTEM DIFECT-OFFRATION S 1.15 SEC.	ON STOP PREDMIUMELY. EMBINE CUTOFF SERVENCE INITIATED SY SOLATER NO. 1 FRIMAN NCC COMMER AT	UDICE INITIATED SV	DOM TER NO		T RCC COMMICE AT	
VENICLE EPPECT-PREMIUME	URE BODBITE ENGINE BOOT BOLD.					
CORRECTIVE ACTION-ENGINE	INE REMONTED EVEN THOUGH THE ACCRETORNE REPRESENTATIVE STATED THAT THE ENGINE NDS SATISFACTORY	REMEDENTATIVE STA	TED THAT T	C CR61M	MB 84718FACTORY	
						

SENERAL DYNAMICS CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSICH SYSTEM-AIRBORNE

	DITFICULTED REVIEW FROM LEICH STRIEM-ALABORNE	CONCESSOR STRICK-AIRBO	ď		
3737EN 848-3737EN	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF DATA BOURCE PART NUMBER	VEHICLE BITE DATE DATE DATE	PRI VENDOR NAME OTH VENDOR PART NO	_
PROPULATON-MAS-A/B BOOKTER	AES1-0548/01-508-00-87 B1 THRUST CHANGER	PL1041	87E 0617-1/W 610607 TR 0.0	OBIF-1/W VEB ROCKETOVNE TR NO 0.6	•
FAILURE MODE-DRRATTE OF	OPCRATION. BE CHEINE BHUTDOM AT D.8 SECONDS. PORT TEST HANDMARE INVESTIGATION INDICATED COMBU	a accombs. Post Test o	ARDIARE INVESTIGATI	ON INDICATED COMBU	
BYSTEN EFFECT-LOSS OF	STRUCTURAL INTEGRITY. B: EMSING MAS BABLY DAMAGED.	BADLY DAMAGED.			
VENICLE EFFECT-PREDATE	WENICLE EFFECT-PREDATURE BOORTER SHUTDOMM, BUBBLENT TO SHUTDOM INC MENICLE BELF DESTRUCTED.	SHUTDOM THE WONTCLE	BELF DESTRUCTED.		
CORRECTIVE ACTION-INSTALL	BAFFLED BOOSTER	THRUST CHAINEST ZILJECTORS AND USE THERT FUEL.	OF FUEL LEAD.		
PROPULSION-143-478 BOOSTER	AC-61-0075/31-601-41-01 Bg THRUST CHARGE	CAPTIVE	1F 81/87C	VES NOCKETOVNE NO LABB-NAY	
FAILURE MODE-OUT OF TO 1871CS. AN AFTERFIRE OF LE FOR NIGH PRESSURE SU	FAILURE MODE-CUT OF TOLERANCE. DURING MORNAL BOORTER ENGINE SMUTDOMN, THE BE ENGINE SMONED ROVAN SMUTDOMN CHARACTER 1871CS. AN AFTERFIRE OF APPROXIMATELY ONE SECOND DURATION RESULTED IN ENCESSINE RCC COUNT AND WAS BELIEVED RESPONSIS LE FOR MIGH PRESSURE SURGES AT THE BZ LOK PUMP INLET.	INC SHUTDOM, THE BE (DICINE BHONED ROVAL RCC COUNT AND MAS	MATODIN CHARACTER PELIEVED RESPONSIB	
SYSTEM EFFECT-ERRATIC OFFRATION.	O'CHATION.				
VEHICLE EFFECT-HONE.					
CORRECTIVE ACTION-LINKING	iou.				
PROPULSION-1443-478 BOOSTER	AB-61-0006/14-602-C8 B66 LON POPET VALVE	FAR	1-4F 1-4/IDM 910418 NDS	1-4/EDM YES ROCKETDYNE RDS HO	30000
FAILURE HODE-INTERNAL ON MANIFOLD AND LOCKING	FAILURE HODE-INTERNUL LEAK. HONDUTARY OPENING OF THE BGG LOX POPPET ALLOWING GAB LEAKAGE INTO THE BR GG LOM INJECTI H HANIFOLD AND LOCKING IT UP UNTIL HORNAL OPENING OF BGA LINK VALVE.	LINE VALVE.	AB LEAKAGE INTO THE	88 66 LOW INJECTI	
CORRECTIVE ACTION-HOME.	C.			:	
PROPULSION-MS-A/B BODSTER	AE00-0099/P3-503-00-00 01 8000TER 6A8 6ENERATOR	7.164	610124 1-0	TES ROCKETOVNE	
FAILURE MODE-OUT OF EXPECTED TEST VALUE. BD VALUE DUE TO IMABULATENT TRANSPOSITION	FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE SI BODSTER EAS GENERATOR OPERATED APPRIED APPRIED BY VALUE DUE TO IMAGNESTENT TRANSPOSITION OF 66 CONDUSTION CHANGERS FRIGHT TO PLIBRIT.	THE BE BOOBTER 648 GENERATOR OPERATED APPROXIMATELY 4 PERCENT ABONE EMPICE OF 66 CONDUSTION CHARGES MICH TO PLIBMT.	APPROXIMATELY 4 PE.	NCENT ABONE EMPECT	 _
STRIEM EFFECT-OPERATIONS ABOVE	ON TOD HIGH. BI EMBINE OPERATED AT APPROXIMATELY SOOD POUNDS THRUST OVER NEWINAL DUE TO 643 NE WE EMPECTED VALUE.	APPROXIMATELY SOGO PO	NDS THRUST OVER NOW	INL DUE TO SAS OF	
MENCLE EPPECT-MOME. THE	THE THRUST ENCESS HAS PARTIALLY OFFIELD BY A SINILLA DECREAME ON DE AND THE INDALANCE HAS MELL OF THE WENICLE STRUCKS TO PASIFIZIN PROPER TRAJECTORY.	det dy a binilab bech Propesi tradecychy.	ANE ON DE AND THE 1	MALANCE WAS MELL	
				3406 3644	

CORVERS TO LOCAL MANAGEMENT

1001 IN 1000	DIFFICUATIES REVIEW-PROPULSION SYSTEM-AIRBORNE	PULBION STATEN-AIRBOI	¥				
STSTEN SUB-STEN	TESTREPCAT MANGER FAILED CONFONENT NAME	DIF DATA SOURCE PART HUMER	VEHICLE DATE OFF T	111E PRI 11ME DIF OTH		VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-UNINDAM.	· F						••••
PROPULATON-IND-A/B BOOK TOR	ACTG-0819/73-903-00-04 RE BOOSTER 6A8 GENERATOR	7184	8E 1	13/£18 1-0	2 2	TEB ROCKETDYAE	16080
FAILURE MODE-OUT OF EID ED VALUE DUE TO INADVERT	PAILUME MODE-OUT OF EINTETED TEST VALUE. THE BE BOOSTEN GAS GENERATOR OPERATED APPROXIMATELY 3 PERCENT SELON EINTETE ED VALUE DUE TO INADMENTENT TRANSPOSITION OF 64 CONSUSTION CHANGERS PAIGN TO PLIGHT.	AS CEMERATOR OPERATES CHANGERS 78108 TO P.	APPROXIMATI	Er 3 PE	<u> </u>	BELOW EXPECT	
SYSTEM EFFECT-OPERATION OPERATION SELOW EMPECTED	STSTEM EFFECT-OPERATION TOO LOW, BE EMBINE THRUST WAS APPROXIMITELY SOOD POINCS BELOW MONIMAL DUE TO GAS GENERATOR OPERATION BELOW EXPECTED VALUE.	HORIMATELY SOOD POUR	S BELOW NON	INAL DUE	0	AS CENERATOR	
WAICLE GFECT-MOME. THE	VOICLE CFTECT-NOME. THE THRUST DEFICIENCY HAS PARTIALLY OFFSET BY A SIMILAR INCREASE ON BY AND THE IMPALANCE HAS M ELL METHIN THE CAPABILITY OF THE VOHICLE STREDIS TO MAINTAIN THE PROPER TRAJECTORY.	PFSET BY A SIMILAR I	MCREASE ON COR.	1 40 1	Ä	BALANCE MB V	
CORRECTIVE ACTION-UNKNOWN.	į						
PROFUS 04-143-1/8 BODSTER	ETR-031/14-531-63-06 BR RCC ACCLERONETER VIRENG	CAPTIVE	631109	1-4/CD48 RD8 41.56	2 0	1-4/EDMA YES ROCKETDYNE RDS HO 41.86	***************************************
FAILURE HODE-ERRATIC OF MT.	OPERATION. THE BE NAM RCC DEVICE COAK CABLE WAS GROUNDED TO THE BHIELD DUE TO A COLDSOLDER JOI	CABLE WAS GROUNDED	10 THE BHIE	D 046 1	V	OF BOTTOE	
SYSTEM EFFECT-INFROMES	DISCRETE SIGNALS. EMCNECUS INDICATIONS OF ROJEN CORGUSTION NERE BEING CENERATED BY THE RCC	17048 OF ROJEH COLEUR	TION WERE D	198 29 8	ENATE	D BY THE RCC	
WORTCLE EFFECT-PRESATUR	WASCLE EFFECT-PREDATURE PROPULSION CUTOFF, THE TEST WAS TERNINATED BY RCC CUTOFF.	TERMINATED BY RCC CUT	·				
CORRECTIVE ACTION-THE R	RCC DEVICE AND COAR CABLE NEDE REPLACED.	.co.					
PROPULSTON-MS-A/B ROOKTER	23-03-144-931-0282 28 38-03-140-140-140-142 28	CAPTIVE	1 53110e	1-4/004	20	1-4/CDMA YES ROCKETOYNE	
FAILURE MODE-STRUCTURAL GCTOR. THE SALITS MEDIE S	FAILUNE HODE-STRUCTURAL. POST-TEST IMPRECTION MEMBALED THO SPLIT TUBES IMMIDE THE SE CHAMBER & INCHES BELOW THE INJ KTOR. THE SPLITS MEME S/V IMON LOWS.	SPLIT TUBES INNIGE	THE BE CHAN	# 5	5	DELCH THE INJ	
SYSTEM CPTECT-NOC.							
WOITCLE EPTECT-HOME.							
CONNECTIVE ACTIVITY REPAIR	118 148C3.		,				
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GENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1986

9888 807 88	DIFFICULTIES REVIEW-PROPULSION STATEN-AIRBORNE	ULBION STETEN-AIRBO	Ä				
\$75TEM \$46-575TEM	TEST/REPORT MUSER PAILED COMPONENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIP	11TE 01F	OTH VEN	SITE PRI VENDOR NAME	
MOPULS CON-NAS-A/B	ETR-030/14-830-03-8E 8E TURBOPUMP ASSENBLY	CAPTIVE	901116	1-4/CDVA RDS	VES ROCKETOVNE NO	KE TO VAE	
FAILUPE MOS-STRUCTURAL.	L. POST-VEST INSPECTION REVEALED THAT THE BE TURBOPUMP ASSEMBLY MAS LOOSE AT THE PUMP MOUNTS.	T THE BE TURBORUM	N8-25-01-V-W	7 3001 e	Ä	Leaf INCLUSTS.	
SYSTEM EFFECT-MOME.							
WONCLE EFFECT-NOW.							
CORRECTIVE ACTION-ACCINE	AEROGETERS WELL ADDED TO DETERMINE THE VIBRATION DIVINOREDIT.	HE VIBRATION ENVIRO	ecu.				
PROPULBION-NAS-A/B BODSTDI	ETR-630/14-330-53-8E 81 TUBOPUP ABSEBLY	CAPTIVE	•1110	1-4/CD44 108	VEB ROCKETOVIE NO	KETÖVME	35.
FAILURE HODE-STRUCTURAL.	L. FORT 1887 INDPECTION REVEALED THAT THE BI TURBOPUNF ARADIGLY WAS LOOSE AT THE PUNF HOUNTS.	i his bi Turborur	ANDERDAY 10	8 COOE A	7	LES HOUSTS.	
SYSTEM EFFECT-NOME.							
WHICH EFFET-1016.							
CORRECTIVE ACTION-ACCE	CORRECTIVE ACTION-ACCELEROMETERS NEWS ADDED TO DETERMINE THE VIBRATION DIVISIONEENT.	NE VIBRATION DIVISO	HENT.				
PROPULSTON-1645-678 8006 TER	AC-40-0044/3E-513-A7-0E B1 LOX TOPFING CHECK VALVE	CAPTIVE	27. 901119	ME/81C	7 č		
FAILURE MODE-STRUCTURAL-	4- THE CHECK WANT WAS POUND TO BE BADLY GALLED. THIS WAS DISCOVERED DURING POST TEST IMPRECT	ADLY GALLED. THIS W	AS DISCOVER	MING OT	188	EST 1188/CCT	
BYBYEN EFFECT-MOME.							
WAIGLE EFFECT-NONE.							
PROPULS (ON-NA3-A/B BOOKTER	AC-80-0048/82-913-A7-02 82 TURSCPURP 8EAR BOIL	CAPTI VE	200	0£/87C	YES ROCKETOVIE	KE TDVNE	##
PAILURE MODE-LEAR EXTERN THE TURBINE TO GEAR CARE	FAILURE MODE-LEAK ENTERMIN. A LUBE OIL LEAK HAS DISCOMENED AT THE BE GEAR BON. MOST PROBABLE CAURE WAS LOOSENING OF THE TURSING TO GEAR CASE THRU-BOLTS. BISCOMENED DURING POST FIRING INSPECTION.	AT THE BE GEAR BON T FIRING INDPECTION	. HOST 7808	ABLE CAU	7 1 1 1	DOSEMINE OF	
OVERTEN EPPECY-MOME.							
WHICH BITCH-HOR.							
CORRECTIVE ACTION-UNKNOW	94.				i		
						PASE DOSA	
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIREGONE

		POLICE BUSIENSKING	¥				
8787EH 848-8787EH	TESTARPORT HUBER PAILED COMPONENT MANE	DIF DATA SOUNCE PART MUNDER	WENTCLE DATE DIF	VEHICLE BITE DATE BIF TIME DIF	S S S	VENDOR HANG VENDOR PART NO	
PROPUL 31 CH- HA 5- A 78 8008 TER	ETR-029/14-929-C3-8E BI MAIN FUEL WALVE	CAPTIVE	801108	1-1/CD/4 608 118.01	50	1-4/CDun VES ROCKETOVIE RDS NO 118-01	
PATCURE MODE-OUT OF ET	INFECTED VALUE. THE PLEL WALVE CLOSED ABHORMALLY BLOW AT CUTOFF.	ABHORNALLY BLOW AT	utor.				
SYSTEM EFFECT-EMATTIC	EFECTS EFFECT-ERRATIC OPERATION. NCC DATA INDICATED ROUGH BURNING APPER CUTOFF.	BURNING APTER CUTOF	٠.				
WOIGHE EFFECT-NOICE.							
CORRECTIVE ACTION-LINE	INDE.						
PROPULSTON-14.78 BOOKTER	AC-60-0041/82-512-A8-02 81 TUBGFUR	CAPTIVE	££ 801014	8g / 87C 78.4	ភ្ន	YES ROCKETOVNE	27
FAILURE MODE-OUT OF TOLDRANCE, MOZZLE BLOC ES TO DISPLACE INTO THE SECOND STACE MEEL.	TOLERANCE. MOZZLE BLOCK BETNEEN FIRST AND SECOND STAGE TURBINE WHEELS LOOSENED ALLONING THE VAN HE SECOND STAGE WHEEL.	AND SECOND STACE TU	BINE WEEK	9 3 8001 8.	8	CHAINE THE VAN	
STATCH EFFECT-LOSS OF DOLLY. BE LOW PRESSURE	STATCH EFFECT-1004 OF STRUCTURAL INTEGRITY. BY PERFORMINCE DETERIORATED WICH DAMME WAS INCUMED BY THE TURBINE ASS DOLY: BY LOW PRESSURE FUEL DUCY AND THE BY MIN FUEL AND LON VALVE CONTROL ASSOCIAT.	LE DETERTORATED MACH	MAGE INS	IKURED	7	E TUBLISE ASS	
WENICLE EFFECT-PREMIN	WENTCLE EFFECT-PREMATURE PROPULATION CUTOFF. TEAT TERMINATED BY CAMERYDR CUTOFF.	TO BY CRECION CUTOF	٠.				
CORRECTIVE ACTION FOR IN	BY TEST INSPECTION REVEALED THAT A SPLIT-RIMS, WHICH ACTS AS A STIFFDER FOR THE HOEZLE BLOCK I DEEM INSTALLED. ALL DAMAGE HANDMANE WAS REPLACED.	LIT-RIMS, MHICH ACTS WAS REPLACED.	A & MIT	TOCH POR	ž	DEZLE BLOCK 1	
PROPULSTON-NA3-A/B RODETER	ETR-021/16-517-52-05 Bs trenust coasess trues	CAPTIVE	23 800	37 / ABC	ភ្ន	GO/C ROCKETDYNE	***************************************
FAILURE MOE-STRUCTURAL. A SPLIT CHANGE TONDO UNDER THE MECOND RETAINING DAND.	MAL. A SPLIT CHANGER PUEL COLLENT THE MAS DISCONERED DURING POST TEST IMPRECTION, THE SPLIT EX DIRECTAINING BAND.	E MA DISCOMENED DUR	# 704 #	157 1340PE	8 2	JE 25.17 EX	
BYSTEM CFFECT-HOLE.							
WONICLE EFFECT-HOME.							
CORRECTIVE ACTION-THE	COCLEM THE NAS REPAIRED BY THE VENEGR.	ober.					
PROPULS COMMINANT	170 - 071 - 071 - 107 - 170 -	756	# # # # # # # # # # # # # # # # # # #	M3/01	22	ACCLE TOTAL	
FALLANT MOST-STRICTURE.	FAILUNE WOOS-DTRIKTURAL. TEAT HED TERMINATED DLE TO A LACK OF D-E LINE OIL PRESOUNE, ENVESTIMITION METELAM. Lape sel plan manny oneanto due to transcento from ois mano crisia, Line adappais.	HAT FINE PERMANE.	HE THE	Estitation	Į.	* * *	
	de se sante eserat. Loss se sans que le san de habital.	L TO THE RE- TANDING.			•		
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	VEHICLE BITE PRI YENDON NAME DATE DIP THE DIP OTH YENDON PART NO		ROCKETOVNE	E of Pure and	AE 1418 HOTED.		3.0 PERCENT.		MIMIN TOLERAN	TES ROCKETBYNE	or temores on			
	1 5]	88		1683	20	8		d d	2 8	1948. 7			
	11 0 17 TIME 019		13/618	ON. THE L	מר ז	1-4/20M	M MONIN	4	OPHNICE 1	16/3 /C	E 4 4 4 3			
¥	VENTELE DATE DIF		34 6000£5	E INDICATE	9 5	808008	47 ABOM 1		t the reserv	# # # # # # # # # # # # # # # # # # #	CACCAT LO			
ULSION SYSTEM-AIRBOA	DIF DATA SCURCE PART NUMBER		1	NO LUBE OIL PRESSURE . PAILURE NAS APPARE PE.	CUT-OFF BY COMMING	CAPTINE	EVEL 1418 3.75 FERGES		RECRIFICED TO INIM	CAPTIVE	ANCE LEVEL WAS 5.1 F AS 821 POIS DURING 1	·	Doeby Att.	
DIFFICULTIES REVIEW-PROPULSION SYSTEM-AINSONE	TESTABETORY MANGER FAILED CONFORENT NAME		FTA6539/F3-901-00-03 BE LUBE OSL FURP, BARFT	FAILURE MODE-FAIL DURING OPERATION. DURING PRF, THERE MAS NO LUBE OIL PRESSURE INDICATION. THE RE LUBE OIL PURP SHE FT MAS SHEARED DUE TO FREEZING FROM RE SLUG CHILL LINE LEAK. FAILURE MAS APPARENTLY SECONDARY TO THE LEAK. SYSTEM EFFECT-OPENATION DOES NOT START. NO LUBE DIL PRESSURE.	WENTOLE EFFECT-PREDATURE PROPULSION CUTOFF, PROPULSION WAS CUT-OFF BY COMMIN WEEN NO LUBE OIL PRESSURE WAS NOTED. CORRECTIVE ACTION-REPLACED BE EMBINE WITH THE ME EASING PROM AE.	ETR-OEL/14-519-E2-52 GAS GOEDATOR, ORIFICE	FAILURE HODE-FAIL DURING OPERATION. THE BI ENGINE THRUST LEVEL WAS 3.75 PERCENT ABONE THE HONIMAL OF 3.0 PERCENT.	700 sign.	GAS SEPENATOR LOK PEED SYSTEM WAS RECRIFICED TO BRIMS THE PERFORMANCE LEVEL WITHIN TOLERAN	AC-40-0033/12-909-A3-02 BE 4A8 GENERATOR ORIFICE	CTED TEST VALLE. DE EMBINE PERFORMNCE LEVEL MAS 5.1 PERCENT LOM AS A RESALT OF IMPROPER OR S ÉCHERATOR. DE CHAMBER PRESSURE MAS SEL PAIS BURINS THE RUN.		IN US SOMETICE FOR BES	
10 Jul 1000	STOTEN BUD-STOTEN	St.	PROPERSION-MS-A/A	FAILURE MODE-PAIL DURING OPE FT MAS SHEARD DUE TO PREEZIM SYSTEM EFFECT-OPENATION DOES	WONICLE EFFECT-PREDATURE PRO	PROPILES CON-NELS-A/B BOXB TER	FAILURE MODE-FAIL DURING	WHICLE EFFECT-OPERATION TOO HIEM.	CORNECTIVE ACTION-THE B1 648	PROPULSI QH-NAJ-A/B BOOSTER	FAILURE MODE-OUT OF EMPECTED IFICIME TO THE BOOBTER GAS 460	WHICH STEET-SOE.	CONTESTIVE ACTION-444 COSTA	

SENERAL DYNAMICS CONVAIR DIVISION

13 JUN 1950

DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

878TEN 846-878TEN	TESTARPORT MUSER FAILED COMPORENT MANE	DIF DATA BOURCE PART HAMBER	VEHICLE DATE DIF	917E 716E DIF	DATE DIF TIME DIF OTH WENCH PART NO	
PROPULSI CH-1M3-A/B BODATER	AC-60-0033/38-507-A3-08 6A1 GREATOR LOA FOPETS	CAPTIVE	77 600453	349/20	VES ROCKETDYNE	•
FAILURE HODE-FAILURE DUR ECOME STRETCHED.	FAILURE HODE-FAILURE DURING GPERATION: POST TEST INSPECTION REVEALED THAT BOTH THE B1 AND BS 6.6. LCM POPPETS MAD B COME STRETCHED.	ION REVEALED THAT BOTH	THE D. A.		LCA POPETIE HAD	
BYSTEN EFFECT-OPERATION	SYSTEM EFFECT-OPERATION TOO MISH- MICH 6.6. PERFORMACE BURING HOT FIRING.	Mains not Plains.				
WONICLE EFFECT-HOME						
CORRECTIVE ACTION-BOTH MAS	LAS EDICATORS NEW REPLACED.					
PROPULSTON-NAS-A/B BOOSTDR	AC-60-0033/78-907-A3-0E	CAPTINE	# 600 C3	26/8 7C	1£8 10	•
FAILURE MODE-STRUCTURAL. RUST CHANGER LON DOME BON	FAILURE HODE-STRUCTURAL, VALWE STEM GUIDE BROKE OFF AND PASHED INTO THE EMGINE, VALWE STEM GUIDE HAS FOUND IN RE IN RUST OWNDER LOK DONE SCREEN. THIS WAS DISCONDED DURING FOST TEST INSPECTION.	NAMED INTO THE ENGINE NOAT TEST INSPECTION.	. VALVE D	30100 101	INS POUND IN BE T	
SYSTEM EFFECT-MOE.						·
WENTCHE EFFECT-HOME.						
CORFECTIVE ACTION-LINELIDIES.	į					
POORTER	AC-40-0030/72-502-42-02 81 648 620624708 LOH POPET	CAPTIVE	77 800778	26/37C 0.915	YES POCHETDYNE NO	335
FAILURE HODE-PREDATURE O	FAILUNE HODE-PREDMIUNE OFENATION. B! 66 FOPPET YALVE CRACKED PREDMIUNELY.	SED PROMINELY.				
SYSTEM EFFECT-HOME.						 .
VOICE DIVECT-104.						
CONDECTIVE ACTION-BURGE BAI	SUPPRESSORS NEWE INSTALLED IN THE 866 PEED SYSTEM.	: 866 FEED BYSTEN.				
Profutation-MAS-A/B BODG TER	ETR-018/14-918-0E-8E 6A8 BENERATOR, CRETICES	CAPTIVE	624,000	1-4/EDM	VES POCHETOVNE PO	r
FAILUME MODE-OUT OF SPECIFI	FAILUNE MODE-OUT OF SPECIFICATION ON TOLDRANCE. PERFORMANCE OF BOTH BOOSTER EMSINES WAS BELOW THE ALLOMBLE 3 PERCE IT LEVEL. FRICE TO THIS TEST THE 6.6. WATERMAN REMALATORS NEW REPLACES WITH CRIPICES IN THE LON 378TH PER BAN 3364	NEE OF BOTH BOOKTER EN	614E6 WA	שבוסה זאנ זאב נסוו ו	TALLOMBLE & PERC	
PA 10011700-0-1724-0 100111-0	78 1.00.					
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GENERAL DYNAMICS CONVAIR BIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

3731EM 346-3731EM	TEST/REPORT MUSER FAILED COMOGENT MANE	DIF DATA SOURCE	VEHICLE BITE	917E	PRI VENDO	VENDOR PART	
CORRECTIVE ACTION-THE O	CAIFICES WENT REPLACED.				1		
PROPULSION-MS-A/B BOOSTER	AC-40-0068/8E-501-A1-02 B66 B001378AP FLEX LINE	CAPTIVE	## ### ###############################	26 / 97 C	YES BOCKETOVIE ID NA-5-26536	поске труме ма-5-26536-2	001100
FAILURE MODE-CONTAKINA	FAILURE HODE-CONTAKINATION. RUBBER PARTICLES WERE FOUND UPSTREAM OF THE BAG INVECTORS DURING FORT TEST INSPECTION.	THEAN OF THE BOG IN	UCCTORS DU	A1146 POST	7687 1846	C C 1104.	<u></u>
STATEM EFFECT-OFERATION	BIRTCH EFFECT-OFERATION TOO LOM. BOORITR ENGINE PERFORMINCE MIS 10 PERCENT LOW.	E MAS 10 PERCENT LON					
WONICLE EFFECT-HOME.							
CORRECTIVE ACTION-BOOTS	STRAP FLEX LINES NOTE ROLLACID. DIBINE FUEL ANDLOR STRÎTINS NOTE CLEANED AND PLUSHID). ÎNIS SAN Rine Run 12-502-A2-02.	NE PUEL ANGLON SYSTE	च स्टब्स	CANED AND	Pusto.	TA10 8AH	
PROPULSION-143-478 BOOB TER	AER-0351/22-601-41-33 OFC: MAY	CAPTINE	23.4	9-2/8YC 11.02	5 Q		
FAILURE MODE-OUT OF EIR	FAILURE HODE-OUT OF EIPECTED TEST VALUE, INADVENTENT ACTIVATION OF THE THRUST CHAMBEN LOR BOOK AND BOOKTEN GAS GENE INTOR LOR PARKE EMRING THE FIRING ALLONED GHE TO ENTEN LOR BYSTEN.	ATION OF THE THRUST BYBTEN.	OWIEGE CO	E DOK A	D BOOM TER	3	
SYSTEM EFFECT-OPERATION	SYSTEM EFFECT-OPERATION TOO LOW. ACTIVATION OF THE PURSE DURING FIRING REGULTED IN LOMERING OF THE B1 THRUST BY 455 PER CENT BELOW HOMINAL AND BE BY 0.67 PERCENT.	URING FIRING RESULTE	N COLEGE	1	E 81 148.4	17 BY 499	
WONTELE EFFECT-HOME.							
CORRECTIVE ACTION-UNLINDAR.	į						
PROPULSICH-HA3-A/B BUSTAINER	A1-440-01-211 Tuline 0-4/T	COSTOS I TE-F10/DA.	£110 650£03	A-1,/A/IB	VES ROCKETOVIE NG	W	•
FAILURE MODE-LEAR EXTEN	FAILURE MODE-LEAK EXTERNAL. FUEL FOUND IN THRUBT SECTION DUE TO A LEAK AT THE SUSTAINER 2003T STRAP LINE 8-MUT.	UE TO A LEAK AT THE	BUSTAINER	2006T 8TR	AP 1316 9-		
SYSTEM EFFECT-MOME.							
WENICLE EFFECT-COMPOSITE DELAYED.	IE DELAYED.						
CORRECTIVE ACTION-8-HUT	TORRUED PROPERLY.						
0/9-6/4-101-4/0 0/9-6/4-101-4/0	AS-440-03-848 Tigline 8-447	COMPOST TE-PRO/DPL	2400 240722	A-3 ///	YES ROCKETOVNE NO	0.1K	
PAINUR MODE-LEAK EXTER	HAL AT THE ACTUATOR LINE PITTING ON THE BUSTAINER LINE OIL TAME PREBUBLISHG VALVE.	THE BUSTAINER LUBE	OIL TAME IN	IC BOOM 127	M VALVE.		
erette erter-non.							
						74 96 A	

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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VENDOR NAME WENDOR PART NO	<u> </u>		AGE TRANSITI			YES ROCKETOYNE SO	PRESSURE SUR				<u> </u>	HOTABLE AT R	BUBLECT TO			PA46 0000
E PR! VE		5 G	1116 141111111			٦	PRESUENCY				45 de 65	MIGHTLY U	SUMES NERE NO ADVERS		ŤŘ.	
VENICLE BITE PRI DATE DIP TIME DIP OTH		F-1/VIB	NEE POLLO			12/3YC	20 A M18				F-1,7478	TICH TO BE	irale mee		METERINE T	
		726169	GR PERFORM STICK.			75F 630625	ERS INDICAT	MICS.			42 E	LOK REGULAT	LVES REACH		10 TO 10	
DIP DATA BOUNCE PART NUMBER		7.167	THE GAS SENERATI NIER ENGINE 1810			CAPTINE	CRIMINCE PARAMETI	DOM CHARCTER!	Ä	RETOYNE.	7.1867	THE SUBTAINER I	PUEL AND LOST IN PEAK-TO-PEAK VAI		PROFINETEDIME T	
TEST/REPORT HUNGER FAILED COMPONENT NAME	DELAYED. TORRUED PROPERLY.	60453-0656/01-801-00-72 648 9ENERATOR	OPCIANTON. OKCILLATIONS OCCURRID IN THE GAS SCHEDATOR PERFORMACE FOLLONING MAINSTAGE TRANSITY.			AC-63-0011/32-615-819-75 BASTAINER THRUST CHANGER	ling operation. Sustainer engine performince parabetera indicated a high presudncy pressure sur I area at neco p.us o.e7 records.	TOO LONG. ABHISHML BUSTAINES PHUTDOM CHARACTERISTICS.	THIS MAS THE LAST TEST ON THIS WOHICLE.	CORRECTIVE ACTION-ENGINE TEAR DOLM MAS RECOMMENDED BY NOCKETDYNE.	60/465-0163/01-501-00-62 648 GENATOR POPIET	OPDATION. INSTRUMENTATION INDICATED THE SUBTAINER LOK REGULATION TO BE SLIGHTLY UNSTABLE AT R. C. CAUNE UNS DETERMINED TO BE THE LOK POPPET VALVE IN THE SUBTAINER GAS GENERATOR.	BYBTEN EPTECT-ERRATIC OPERATION. BUBTAINER GAS GENERATOR FUEL AND LOK INJECTION MANIPOLD PRESSURES WERE SUBJECT TO RANDOM OBCILLATIONS DURING THE PIRST 4 SECONDS OF PLISMT. PEAR-TO-PEAK VALUES REACHED 100 PSI. NO ADVERSE SYSTEM EFF ECTS WERE OBSERVED.		POPET IN SECTION ON CAMBER PROFITERING TYPE TO NON-METERING TYPE.	
STSTEM SUB-STSTEM	WENICLE EFFECT-COMPOSITE DELATED. CORRECTIVE ACTION-B-NUT TORRUED PROFERLY.	PROPULSION-NA3-A/B BUBTAINER	FAILURE MODE-ENRATIC OFFEE ON AND CONTINUED FOR APPRIC	SYSTEM EFFECT-HOLE.	CORRECTIVE ACTION-HOME.	PROPULSION-M3-A/B	FAILURE MODE-FAIL DURING OPERATION.	BYBTON EFFECT-OFFIANTON TOO LONG.	WAICLE EFFECT-HORE. THIS	CORRECTIVE ACTION-ENGINE	PROPULSION-MAS-A/B BUSTAINER	PAILUKE MODE-ERRATIC OPEN ESSULATOR PULL OPEN: THE CA	SYSTEM EFFECT-EMATIC OF RANDOM OCCILLATIONS DURING ECTS WERE CREENED.	WHICH EFFECT-HOME.	CORRECTIVE ACTION-LOR FOR	

GENERAL DYNAMICS CONVAIR BIVIBION

15 Jun 1986

DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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VENDOR NAME	YES ROCKETDYNE	MUTED IN EMARE WAS REFLECTED THE CREEK OF 30	NTION. NI POR METERING ROCKETDING	T DONE OR FUEL IN THE PROPELLANT V ENE NOTED DURIN		POSSIBLY DUE 7	Pase 0190
1 PB 1	} ₽ ₽		MA ESU	6 10 M	1	e training	
111E 91F	=	ION NATIONALNA	STAINER ECTOR N NE POPPE SE/SYC	4.64 TOT DUE THROAT	8/8/0	4	
VEHICLE DATE DIF	1337	ING OPERAT MERATOR PEI PEED DECORE	CTED IN BUT ERATOR INJ TREAM OF TO	ATION IN TATION OF CUMPER 1	32	SACUE CACUE	
DIF DATA SOURCE PART NUMBER	F.1967	ED DEFORMTION DURI PET CHANGED GAS GEI IAL BECOGOS. FURP BE	COM VERE NOT REPLECT BUSINESS CONTROL CONTROL CONTROL CONTROL CAPTURE	UNDICATED A DETOW UNDIALE MIXTURE AL P TEST. ' THRE SPLITS IN TH	CANINE	ACALID D-MATS AND R	
TESTAGNOST HUNGER FALLED COMPORENT MANG	60/463-0120/PI-601-00139	FAILURE MODE-STRUCTURAL. THE EAS GENERATOR POPPET EXPERIENCED DEFORMATION DURING OPERATION SMICH RESULTED IN EMLARGE DENT OF THE AMMULAR GAP. SYSTEM EFFECT-EMRATIC OPERATION. THE EMLARGDENT OF THE POPPET CHANGED GAS GENERATOR PERFORMANCE AND MAS REFLECTED IN RANDON TURSO PURP SPEED OSCILLATIONS FOR PERIODS OF SEVERAL SECONDS. PURP SPEED DECREASES MENE ON THE CORDER OF 30 RPM.		FAILURE MODE-FAILED DURING OPERATION. BUSTAINER DIGINE DATA INDICATED A DETOMATION IN THE ENGINE LON DONE OR FUEL HANTER MOTE AREA AT SECO PLUE O.555 SECONDS. POSSIBLE CALME MAS MASSAER HIXTURE RATIO AT CUTOFF DUE TO THE PROPELLANT VALVES MAYING NOT RELOCED CONTROL SECONDS. POSSIBLE CALME NAS MASSAER HIXTURE RATIO AT CUTOFF DUE TO THE PROPELLANT VALVES MAYING NOT REACHED CONTROL SECONDS. PROPERTY. SIX PUBL JACAET THEE SPLITS IN THE CHANGER THROAT AREA MERE NOTED DURING FORT TEST INSPECTION.	D BUSTATIVER ENGINE. AC-43-0001/12-605-86-75	P-MATS FORT TEST INSPECTION REVEALED 8 CRACKED B-MATS AND 8 CRACKED B-MAT BLEEVES. FORSIBLY DUE IN THE TORNAED CONDITION. AND REEVES MERK REPLACED.	
3757EN 808-3757EN	PROPULSTON-MS-A/B SUSTATINER	FAILURE MODE-STRUCTURAL. THE CHENT OF THE ANNUAR GAP. SYSTEM EFFECT-ERRATIC OPERATION RANDOM TURBO PURP SPEED ONG RPM.	VENICLE EFFECT-MOME, THE CORRECTIVE ACTION-DESIGN N-HETERING LON FOPPET. THE LON FLOW TO THE COMMUNITY.	FAILURE MODE-FAILED DURING OF AMIFOLD AREA AT SECO PLUS 0.35 ALVES MAYING NOT MEACHED CONTIT SYSTEM OFFECT-LOSS OF STRUCTU 6. POST TEST INSPECTION.	UTE ACTION-REPLACE N-NA3-A/B	PARTAINER MODE-STRUCTURAL. FOST TEST INSPECTION REY O STRESS CONTOSION WHILE IN THE TORSAED CONDITION. STREET EPTECT-HOME. WENICLE EPTECT-HOME. CORRECTIVE ACTION-8-HUTS AND BLEEVES WERE REPLACED	

GENERAL DYNAMICS CONVAIR BIVIRION

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9901 307 01	DIPPICULTIES REVIEW-PROPULSION STSTEM-AIRBORNE	LBION BYSTEN-AIRBOR	.		-		_
8737EH 80 8 -8787EH	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA BOUNCE PART HUBER	VEHICLE DATE DIF	817E 11NE DIF	N THE	OTH VEHICA PART NO	
PROPULATON- NA3-A/B AUSTAINER	ACURE -0015/702-1012-00-13	PLIGHT	136	F2 / WTR 83 . 5	2 2 2	ROCKE TO VIE	771
FAILURE MODE-BTRUCTURAL. EBSURIZE THE BUSTAINER L	PAILUME WODE-STRUCTURAL, AS A RESULT OF THE EXPLOSION AT 18.4 SECONDS, IT IS BELIEVED THAT THE PHEURATICS LINE TO P RESSURIZE THE SUSTAINER LUBE OIL RESERVOIR WAS CANAGE AND THE LUBE OIL TANK WAS NOT PRESSURIZED.	L LUSE OIL TANK WAS	ELIEVED TH	A1 116 P	CUM 1	C8 LINE 70 P	
FFECT-DEMETION	BYBIEN EFFECT-DEPLETION OF 648 SUPPLY. THIS LOSS OF MELIUM PRESSURE RESULTED IN FAILURE OF THE LUBE OIL BYBIEN TO P MOPENLY LUBRICATE THE SUSTAINES PURP. THE PURP THEN FAILED AT 95.5 MECHODS.	PRESSURE RESULTED !	N FAILURE	9 7K P	110 Jen	evatte 10 P	· · · · · · · · · · · · · · · · · · ·
WHICLE EFFECT-MEDATURE HE RESULT OF NO SUSTAINER	IE SUSTATINER DIKTINE BRUTDOM. MAEN BOOSTER JETTISCH OCCURRED THE VEHICLE BECAME UNSTABLE AS T IR OFENATION.	DATER JETTIBON OCCU	AMED THE V	באוכת	ECANE L	887ABLE AS 7	
CORRECTIVE ACTION-UNKNOWN	į						
PROPULSION-NAS-A/B BUBTAINER	AOJEE-0112/P1-401-00-16 VALVE-BERVO,	PLIGHT	167	11 ÆTR 0	5 5 5	ROCKETOVIE	19884
FAILURE MODE-OUT OF TOL GAOUT FLIGHT. THIS MAS (ALIBRATED.	FAILURE HODE-OUT OF TOLERANCE. THE HEAD SUPPRESSION VALVE WAS BETHEEN 2 AND 9 DEGREES HORE OPEN THAN RESULAD THROU SHOUT FLIGHT. THIS WAS CAUSED BY A 10 PS! EDROR IN THE CONTROLLER CHECKOUT RIT AT THE THE THE H.S. CONTROLLER MAS CALIBRATED.	AS BETHEEN & AND S POLLER CHECKOUT KIT	DEGREES HE AT THE TIL	ME OPER THE H.	7744 R	COULTER WAS C	
FTECT-NOIG-LOB	BYSTEN EFFECT-NOME-LOW PLOW RATE TEDGED TO BE BLIGHTLY HIGH BUT THIS WAS CORRECTED BY THE PU VALVE. AT THEORETICAL LOX DEPLETION ONLY 139 POINDS OF FUEL NOWLD HAVE REDAINED.	+ BUT THIS WAS COM	CTED BY T	3 3	W. AT	THEORETICAL	
WHICH EFFECT-NONE.							
CORRECTIVE ACTION-HOME.							
PROPULSTON-143-A/B SUBTATIVES	ACLOS -0017/P4-401-00-113	FAF 2 103 94	1130	14/ETR	5 8	YES ROCKETDYNE NO	£ .
FAILURE HODE-LEAK-EXTE ST CHARTR.	PAILUNE MODE-LEAK-EXTERNAL. AFTER PINAL TANKING FOR FRF, FUEL WAS DISCONERED LEAKING FROM THE SUSTAINEN ENGINE THAU It commeer.	UEL MAR DIRCOMERED (LAKING PIR	¥ ¥	19 TA ENE	I CHEINE THEU	
BYBIEN BITECT-NONE.							
WAICLE EPPECT-COUNTDOM	AN ABOUTED AND RESCHEDULED. PRF WAS SCRUBBED AND RESCHEDULED FOR \$7.078E.	SCRUBBED AND RESCHE	WED FOR)/e/te.			
WE ACTION-THE	CORRECTIVE ACTION-THE BIGGOR PU VALVE LIP BEAL WAS REPLACED.	9.					1
PROPULSION-IMB-A/B BUSTAINER	AERE-0001/01-501-00-07	PLIMI	677 920713	F-1/478	3 2		
FAILURE MODE-OUT OF EXPEC AND REACHING A LOW OF -64	FAILUME MODE-OUT OF EMPECTED VALUE. ABMORMALLY LOW BUSTAINER EMSINE AREA TEMPERATURES, STARTIMS TO DECAY AT LIFTOPP AND REACHIMS A LOW OF -88 DES F AT 175 SCORDS INDICATED A LOM LEAR IN THE BUSTAINER SYSTEM.	ER ENGING AREA TENET LOR LEAR IN THE BUT	CRATURED.	STARTIM STEM.	10 PEC	AV AT L191009	
			-			PA66 0101	
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GENERAL DYNAMICS CONVAIR DIVISION

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		DIPTICULTIES REVIEW-PROPULATON BYATEM-AIRBORNE	LEION BYSTEN-AIRBON	¥				
	3727E 856 - 878 F 8	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	111E 01F	7 1 0 1 H	VEHICLE BITE PRI VENDOR PART NO	
	STATEM EFFECT-LOW TEMPERATURE LVE AND PROBABLY THE PU VALVE ND SUBSEQUENT EARLY BUSTAINER	SYSTEM EFFECT-LOW TEMPERATURE ENVIRONMENT, THE LOX LEAK CAUSED FREEZING OF CONTROLLING LINES WHICH CAUSED THE HS WA LVE AND PROBABLY THE PU VALVE TO GO TO FULL OPEN POSITION. AT 68 BEC. THIS CAUSED ASMORMALLY HIGH BUSTAINER THRUST A ND SUBSEQUENT EARLY SUSTAINER CUTOFF, RESIDUAL THRUST HAS PRESENT FOR 43 BECOMDS AFTER CUTOFF.	SED FREEZING OF CONT. 40 BEC. THIS CAUS	CONTROLLING LINES WHICH CAUSED CAUSED ASHORMALLY HIGH BUSTAINEY CONDS AFTER CUTOFF.	INES MAI LLY MIGH TOFF.	5	UBED THE HS VA	94
	WENICLE EFFECT-INFROPER	WEMICLE EFFECT-IMPROPER TRAJECTORY. THE PAILURE OF ONE OR BOTH PROPELLANT VALVES TO CLOSE AT SUSTAINER CUTOFF RESULTED IN RESIDUAL THRUST AFTER CUTOFF. THIS CAUSED THE R/Y TO OVERSHOOT THE TARGET.	OTH PROPELLANT VALV	Es 10 CLOS 1.	E AT 808	7 A I NE	A CUTOFF AESCL	
	CORRECTIVE ACTION-INSPECT R BOOT STRAP TUBE TO FUEL FUEL PRESSURE, HS SERVO	CORRECTIVE ACTION-INSPECTION OF TORQUE PAINT ON THE LOK DRAIN LINE CHECK VALVE/LOX REGULATOR INTERFACE, CLAMPING LO R BOOT STRAP TUBE TO FUEL BOOT-STRAP LINE, AND AN INTERIN FIX CONSISTING OF INSTALLATION OF NEW PROOF TESTED CONTROL FUEL PRESSURE, HS SERVO CONTROL VALVE, AND LOX AND FUEL BENSING PLEXIBLE LINES.	IN LINE ORECK VALVE X CONSISTING OF IM SING PLEXIBLE LINES	ALLATION TALLATION .	ATOR ENT OF NEW P	TOO HOOF	E, CLAMPING LO VERTED CONTROL	
	PROPULSION-MAS-A/B BUSTAINER	AC-42-0031/31-613-14-01 HEAD SUPPRESTON VALVE.	CAPTIVE	1F ero313	\$1/87C 0.8	2 2		•
	FAILURE HODE-OUT OF EXPECTED TEST VALUE, THE IN WALVEOPENIME. THE MOST PROBABLE CAUSE OF VALVET SEIZURE RESULTINGFROM FREEZING OF HOISTURE AT THE SMAFT FROM THE VALVE ACTUATOR MECHANISM.	ECTED TEST VALUE. THE IMPROPER OPERATION CONSISTED OF AN APPROXIMATE 350 HILLISECOND DELAY I PROBABLE CAUSE OF VALVE OPENING DELAY (HESITATION AT THE POUR DEGREE OPEN POSITION) WAS SHA FREEZING OF HOISTURE AND RUST IN THE VALVE IDLER SHAFT BEARING HOUSING ON THE OPPOSITE EAD LVE ACTUATOR MECHANISM.	TION CONSISTED OF A AV (HESITATION AT 1 E VALVE IDLER SHAFF)	N APPROXIDE	ATE 350 GREE OPE OUBLING O	10 24	SECOND DELAY 1 (TTICH) 1468 BMA COPPOSITE ELD	
	SYSTEM EFFECT-EXPLOSION. 6E SMEED, THE ABMORING LO ASSME SMELLER TO CONTACT FICIENT SINTERNAL PRESSURE	SYSTEM EFFECT-EXPLOSION. WHEN THE VALVE BEGAN ITS CPENING MOVEMENT, THE SUSTAINER PLAP WAS AT ITS MAXIMUM SPIN CHAR SE SPEED. THE ABNORMAL LOADS THEREBY IMPOSED ON THE PLUP SHAFT PRODUCED SUFFICIENT SHAFT DEFLECTION TO ALLOW THE NOT ATTHE IMPERIAL TO CONTACT THE PLUP CASE WEAR RING. THIS RUBBING CAUSED A FIRE WITHIN THE PLUP CASE WHICH CREATED SUF FICIENT INTERNAL PRESSURE TO FRACTURE THE PUMP VOLUTE AT ITS PARTING LINE.	OVENERAT, THE SUSTAINE FROM THE NOTICE CAUSED A FIRE NEATHER LINE.	HER PURP LENT BOART	NS AT 17 DEFUECTI PURP CAS	* 9 m	IMM SPIN CHAR ALLOW THE ROT CH CREATED SUF	
	WENTCLE EFFECT-LOSS OF W	WENICLE INTEGRITY. THE BANAGE TO THE PROPELLANT AND HYDRAULIC BUCTING CREATED AN UNCONTROLLA AND EXPLOSION OF THE MISSILE.	PROPELLANT AND HYD	RAULIC BUC	TING CAE	5	AN UNCONTROLLA	1
	CORRECTIVE ACTION-NEL-F	LINER ADDED TO SUSTAINER LOX PURP INLET TO PRECLUDE PURP RUBBING.	NET TO PRECLUDE PL	NE RUBBING	•			
<u> </u>	PROPULSION-NES-A/B BUSTAINER	AERE-0352/82-601-41-99 WYFERCALIC CARTRIDGE CONTAINER B-N	CAPTIVE	39° 920484	8-2/87C 4.71	ž š	YES ACCLETDYNE NO	953966
	FAILURE MODE-OUT OF TOLIZIANCE. THE EN MAS TORGUED TO ABOUT ED IN-POUND. TO LEAK UNDER 10 PSIG SNE PRESSURE.	PAILURE MODE-OUT OF TOLERANCE. THE B-NUT ON THE DIBCHARGE PORT OF THE BUSTAINER ENGINE MYPERGLIC CARTRIDGE CONTAIN EN MAS TORBUED TO ABOUT ED IN-POUNDS. BPECIFIED TORBUE FOR THIS FITTING IS 130-140 IN-POUNDS. THE FITTING WAS FOUND TO LEAK UNDER 10 PSIG GNE PRESSURE.	ORT OF THE BUSTAINE HIS FITTING IS 180-	2 ENGINE 1	VPERGOLI NDB. THE	3 =	TRIDGE CONTAIN ING MAS FOUND	
	STREET CPFECT-MEN TOURS ITEMES TO THE PLATE	STETCH CPTCCT-WIGH TEMPERATURE ENVIRONMENT, WYPERGOL LEAKING AT THE FITTING DURING THE BUSTAINER IGHITION START AEG WENCE IGHITED AT THE PITOT, REDLINE MEASUREMENT, THERNO-COUPLE AND CREATED A LOCAL WIGH TEMPERATURE ENVIRONMENT. WH ITE MESSIONE WAS POUND ON THE THERNOCOUPLE.	6 AT THE FITTING DU PLE AND CREATED A L	RING THE G	USTA INEA TEMPERAT	3 3	TION START BES NVIROBENT. IN	
	WEATCHE EFFECT-PREDATURE	WENTELL EFFECT-PREDATURE PROPULSION CUTOFF. THE TEST WAS PREDATURELY TERMINATED BY THE P17107 COSERVER WACH THE TEM Preature exceeded the upper redeline limit of 210 Dof.	dature, terinat	7 3rt ve	17107 G	¥ 53	A WAGES THE TELE	
	CORRECTIVE ACTION-THE NY	CORRECTIVE ACTION-THE NYPERBOL CARTHIDGE DISCHARGE FORT B -NUT HAS OMERICANDAGED HAILE ATTEMPTING TO REPAIR THE LEAK. THE PITTING AND THE DISCHARGE PER HIS "180.	NUT INS OVERTORGUED BAZASES AND BOTH 17	THE VENE P	EPLACES	5 K	PAIR THE LEAK. RS : 360.	
								
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GENERAL DYNAMICS CONVAIR DIVIBION

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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	LSION BYSTEM-AIRBOR	ע	1			_
878TEN 818-878TEN	TEST/REPORT MUBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIP		2 to	DIF OTH VENDOR PART NO	
PROPULSION-NAS-A/B SUSTAINER	AE81-1283/P1-801-00-11	P.1641	116	11/618	Şe	VES ROCKETBYNE NO	:
FAILURE MOSC-FAIL DURIN	46 OPERATION. INTERNAL OVER- PRESSURE IN LOX PURP BELIEVED CAUSED BY EXPLOSIVE COMBUSTION OF FROM RUBBING BETHEEN ROTATING AND MON ROTATING PURP COMPONENTS.	IN LOX PURP BELIEV M ROTATING PURP COP	ED CAUMED POVENTO.	DA CIPLO	Ä	COMPLETION OF	
SYSTEM EFFECT-ENROSION	STREEN EFFECT-ENTINGION. INTERNAL ENTINGION IN LOK PLAP RESULTED IN LOSS OF LOX STREM INTEGRITY.	ותיבם זא רספו טב רכ	K 878764	INTEGRATIV			
WAIGHE EFFECT-LOSS OF 10H.	VERICLE INTEGRITY. EXPLOSION LED TO A THRUST SECTION FIRE AND EVENTUALLY TO VEHICLE DESTRUCT	A THRUST BECTION FI	RE AID EV	ENTUALLY	5	HICLE DESTRUCT	
CORRECTIVE ACTION-ADDIT	CORRECTIVE ACTION-ADDITION OF KEL-F LINER TO PURP INLET TO PREVENT RUBBING OF NETAL-TO-NETAL.	PREVENT RUBBING OF	NETAL-10-	ETAL.			
PROPULSION-1443-A/B BUSTAINER	32-501-A1-62 564 CORUSTOR LOK POPPET	CAPTIVE	42E 420111	12.87C	ភ្ន		355
FAILURE MODE-OUT OF TOL MEVELLED THAT A DETOWATI UGGING OF THE 66 AND A F	FAILURE MODE-OUT OF TOLEBANCE, OBSERVER CUTOFF WICH THE SGG TEMPERATURE EXCEDED REDLINE, SUBSERUENT INVESTIGATION REVEALED THAT A DETOMATION OCCURRED IN THE SGG CAUGING A STRETCHING OF THE LOW POPPET, RESULTING IN LOW PREMENCY CH UGGING OF THE GG AND A FAILURE OF A FAULTY WELD AT THE TURBINE INLET MANIFOLD.	FEMERATURE EXCESS RETCHING OF THE LOW INE INLET MANIFOLD.	ED REDLIN	E. 9489E8	2 2	INVESTIGATION M PREGLENCY CH	
STSTEM EFFECT-OPERATION	SYSTEM EFFECT-OPERATION TOO MIGH. THE STRETCHED LOW POPPET RESULTED IN INCREASED OPERATING PRESSURES AND LEVELS.	RESULTED IN INCREAS	ED OPERAT	ING PRESS	25	AND LEWELS.	
VEHICLE EFFECT-A LOW LE	VEHICLE EFFECT-A LOW LEVEL EXPLOSION AND FINE POLLCHED COSERVER CUTGIF BY 1.5 SECONDS AS A DIRECT RESULT OF THE 16M ITTON OF FLEL VANDRS SHICH VERE INTRODUCED INTO THE THRUGT SECTION BY THE 346 STRUCTURAL FAILURE.	ERVER CUTOFF BY 1.5 MECTION BY THE 846 (SECONDS A	A DIREC	7	ULT OF THE 15H	
CORRECTIVE ACTION-1. NE	CORRECTIVE ACTION-1. REVIEW RADIOGRAPHS OF THE TURBINE MANIFOLD ASSEMBLY WELDS. 2. INSTALLED MAS-RES MHICH MEDESIGN D THE SEE LOK INJECTOR AND POPPET.	IPOLD ASSEDBLY WELD!	J. E. IMBT	ALLED MAS	5 23-	MICH REDESIGN	
PROPULSION-NA3-A/B BUSTAINER	AA61-0212/P3-500-01-34 PAEYAL VE	CORPORT TE-PRO/DR.	34C 611E08	13Æ18	ž 8		
FAILURE MODE-INTERNAL LE R FUEL CHECK VALVE FOR TH RUBBER BEAL MERE MIBBINS.	LEAK. WORN BUSTAINER FUEL PRE-VALVE MAS CLOSED FOR THIND THE TO FERHIT REPLACEMENT OF VERHIE THIND THE, IT WAS HOTED THAT PRE-VALVE WOULD NOT BEAL. INVESTIGATION REVEALED THO PIECES OF ME.	HAS CLOSED FOR THISE LVE NOULD NOT REAL.) 11ME TO INTERTIGA	PERMIT RE TION REVE	24	DIENT OF VERHIE THE PIECES OF	
STATON OFFICE-CONTAMEN	SYSTEM CPTECY-CONTAMENATION. SUSTAINER PUEL SYSTEM CONTAMINATED BY PIECES OF SEAL.	MATES BY PIECES OF	EAL.				
VEHICLE EPPECT-NOW. TA	VEHICLE EFFECT-HOME. TANSIMP TEST HAD BEEN COMPLETED BEFORE PRE-VALVE HAS CLOBED TO REPLACE CHECK VALVE FOR THIRD THE. ALL PIECES OF SEAL NOIS FURID AND PRE-VALVE REPLACED.	E PRE-VALVE MAS CLOS	55 5 55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	LACE CHEC	¥	T FOR THIRD T	
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SCHERAL DYNAMICS CONVAIR DIVISION

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816-46 816-375E	TEST/REPORT NUMBER PAILED COMPONENT NAME	91F DATA BOUNCE PART NUMBER	VENICLE DATE OIF	3116 1116 3117	VEHICLE BITE PRI VENDOR NAME DATE OF TIME DIF OTH VENDOR PART NO	
PROPULSION-M3-A/B sustainen	AE61-1108/P3-501-00-32 BUSTAINER LOZ REBULATOR	FLIMT	32C 611110	13/ETR -1	NO ROCKETOVNE NO	•
FAILURE MODE-FAIL DURIN	FAILURE WODE-FAIL DURING CPERATION. REGULATOR WAS INSTRUMENTED TO BLUEPRINT WHICH WAS IN ERROR.	NTED TO BLUEPRINT W	11 CM 140 11	CARON.		
BESTER EFFECT-OPERATION	BESTEN EFFECT-OPERATION STOP PREMIURLLY. THIS ERROGOUS PLUMEING CAUSED LOK STARVATION TO THE SEG AND SUBSCANCHT L	LUMBING CAUSED LOK	STARVATION	10 THE 84	S AND SUBSCRUCKT L	
VEHICLE EFFECT-PREDATU	WATCLE EFFECT-PREDATURE BUSTAINER ENGINE SAUTDOMN. WENICLE BESTROYED AT S4 SECONDS SY RAME SAFETY OFFICER.	E DESTROYED AT 34 M	TCO-DS BY	TAME SAFE	IT OFFICER.	
CORRECTIVE ACTION-NE-WORK	CHE PRINT TO ENSURE PORT GOS IS UTILIZED.	1260.				
PROPULSION-MS-A/B BUSTAINER	AC-61-0096/32-909-A3-01 THRUST CHANGER-INJECTION PLATE	CAPTIVE	ME 0100E7	26 / 3 7C	YES ROCKETDYNE NO	950
FAILURE MODE-STRUCTURAL USTAINER INJECTOR PLATE.	FAILURE MODE-STRUCTURAL-POST-RUM INSPECTION REVEALED ADDITIONAL ERROSION IN COMPARISON TO RUM A2-504-A3-01 ON THE BEFAINCR INJECTOR PLATE.	TOWL CREOSICH IN C	DIFART BON	TO RUR BE-	304-A3-01 CN THE 8	
SYSTEM EFFECT-NOME.						
VEHICLE EFFECT-NOIG.						
CORRECTIVE ACTION-THE	MATATION DIGING WAS REPLACED PATOR TO PURPOR TEATING.	TO PURTHER TESTING.				
PROPULSION-MAS-A/B BUSTAINER	48-61-0020/14-613-16 3USTAINER 66 LON RESULATOR PLOW RP COL. ROPPET	CAPTIVE	1-4F 610927	1-4/CD48 ROS	7E 8	
FAILURE HODE-PRENATURE WED TO THE FULL CLOSED GHAL HAS GENERATED.	CHERATION. MEGULATOR PLON SPOOL WAS IN THE FULL CHEN POSITION AT BOOSTER START. THE POSITION PRICE TO SUSTAINER START AND ADMAINED FULL CLOSED UNTIL AFTER THE SUSTAINER	IN THE FULL OPEN PO A REMAINED PULL CLO	DELTION AT	BOOSTER BY	FART. THE SPOOL HO HUSTAINER START 21	
BYSTEN EFFECT-NOME.						
VEHICLE EFFECT-NOVE.						
CORRECTIVE ACTION-NOME.						
PROPULSTON-NAS-A/S BUSTAINER	AB-61-0010/14-612-HS BUSTAINER 66 FUEL BLADE VALVE	CAPTIVE		1-4/80th 80: 3.08	5 g	
FAILURE MODE-LEAK. INDI	FAILUME MODE-LEAR, INDICATION OF PUBL LEARAGE DURING BP96 CPERATION, PRIOR TO 1944 TENSIMATION.	OPERATION, PRIOR TO	BPC TERM	INTION.		
STATES COTCE-CHANTIC	OPCEATION.					
WENTELE EFFECT-COUNTROL	DISH ABORTED. THE TEST WAS TERMINATED BUE TO REVENSE LEAD TEMPERATURE TO DEPLECT OFF-SCALE LOW AT 18MITION START.	DUE TO REVERSE LEAD! AT 1001TICH START.	2 34 H	'C COMECT!	TO REVERSE LEADS IN THE TAC COMMECTION, MAICH REPLECT HONITION START.	~
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GENERAL DYNAMICS CONVAIR DIVIBION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	A.BION DYSTEN-AIRBOR	#				
8787EM 84 6 -8781EM	TEST/REPORT NUMBER FAILED COMPORENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	11 E 01	# 6 # 0	VEHICLE BITE PAI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART HO	
PHENT OPERATION.					1		:
SYSTEM EFFECT-OMERATION ON COULD NOT BE FULLY COM	NTION TOO LON-THIS RESULTED IN A LONER THAN NORMAL LON PLON RATE AND THE INITIAL LON RICH CONDITI.	AN NORMAL LOX PLOY	RATE AND 1	ME 1M171/	3	H RICH COMDITI	
WHICLE EFFECT-NOIG-SUFF	WEMICLE EFFECT-NONG-BUFFICIENT BURNABLE PROPELLANTS REMAINED AT BUSTAINER CUTOFF FOR 10.76 SECONDS ADDITIONAL EMSIN OPCRATION.	D AT BUBTAINER CUTO	77 708 10.	76 BECOR	.	DITIONAL ENGIN	
CORRECTIVE ACTION-NS SER	IS SERVO CONTROL VALVE CHECKOUT PROCEDURES MERE REVIENED AND FOUND ACCEPTABLE TO MAS REQUIREMENTS CONTROLLER SETTING INDICATES ERPOR GREATER THAN 10 PS? THE DESIGN GROUP WILL BE CONSULTED.	A WERE REVIEWED AND THE STREET	FOUND ACC	EPTALE I	5 A	A REGUINEMENTS NSULTED.	
PROPULSION-MAS-A/B BUSTAINER	04536/L£-40E-00-07 9EAL	countibose	9.00 9.00	PALCI-E	20	PALCI-E YES ROCKETOTHE	
FAILURE MODE-INTERNAL LE	FAILURE MODE-INTERNAL LEAR AT THE SUBTAINER PUEL TURBO PURP NO. 4 SEAL.	NO. 4 BEAL.					
BYSTEM EFFECT-CONTAMENAT	INTIMATION OF BUSTAINER FUEL TURBO PURP.						
WENTELE EFFECT-COLATIONAL	STOCH ABORTED.						
CORRECTIVE ACTION-BUSTAI	MUSTAINER FUEL TURBO PUMP REPLACED.						
PROPULSION-NAS-A/B BUSTAINER	70-41-000 VALVE A0-41-0000-14-402-C8	CAPTIVE	1-46	1-4/TD44 R08 1.0	ž g	1-4/EDMA TES ROCKETDYNE RDS NO 1.0	7
FAILURE MODE-INTERNAL LEA ER BUSTAINER ENGINE BTART.	FAILURE MOE-INTERNAL LEAK. GAS OR WARM LOX PASSED THROUGH THE SLATAINER AND BI TURGO PURPS APPROXIMATELY I SEC AFT IS SUSTAINER ENGINE START.	THE BUSTAINER AND B	7 OBM1	***	*	76LY 1 86C AFT	

1-4/CD44 TEB BOCKETOVSE RD8 NO 10701 PAILURE MODE-INTERNAL LEAK. PUEL LEAKAGE PAST THE BLADE VALVE DURING APOG CPERATION. THE THE OFFICE OFFRATION TOO MIGH. PRESSURE BURGE IN THE BUSTAINED LON PURP. CAPTIME A6-61-0004/14-601-A3 866 FUEL BLADE VALVE CORRECTIVE ACTION-NONE. WENICLE OFFECT-NONE. MOPULA COM-MAS-A/A SUSTATINES.

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CORRECTIVE ACTION-WING. THE DAS PUEL BLADE VALVE WILL DE REPLACED PRICE TO THE MEXT TEST.

BYSTEM EPTECT-LOW TEMPERATURE ENVIRONMENT.

While OFTER 1-HOLE.

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DIPFICULTIES REVIEW-PROPULATION SYSTEM-AIRBORNE

31 6 -6737Em	FAILED COMPORENT NAME	DIF DATA BOUNCE PART NUMBER	DAYE DIF	TIME DIF	OTH YEADOR PART NO	
Profue stor-tus-a/8 AE.	AE 60-0036/73-501-00-v4 HEAD BUFFREESSON VALVE CONTROLLER	7.181	9E 610224	13/ETR 7ES 0 TO 310 YES	7. 7. 7.	***
FAILURE MODE-OUT OF TOLERAM GAT INSTEAD OF AT 41.6 DECREI BITTON ERFOR COALD MAYE REEN VALVE FOSTITION INDIGATION.	FAILURE MODE-OUT OF TOLERANCE. PLIGHT DATA INDICATED THAT THE MB VALVE REMAINED AT 35 DEGREES DURING THE ENTIRE FLI HI INSTEAD OF AT 41.8 DEGREES AS EXPECIED IN RESPONSE TO THE PU VALVE INDICATED LON RICH (CLOSED) POSITION. THIS PO TITOM ERROR COULD MANE BEEN CAUSED BY A FAULTY HS VALVE CONTROLLER OR COULD MANE BEEN THE RESULT OF AN ERRORGOUS PU VALVE POSITION INDICATION.	HE HB VALVE REMAINES E PU VALVE INDICATES TROLLER OR COULD HAY	AT 35 DE LOK RICH NE BEEN TH	HEES DURI (CLOSED) E RESULT O	NG THE ENTIRE FLI POBITION. THIS PO F AN ERRONEOUS PU	·
BYSTEM EFFECT-OPERATION TOD TION AT LIFT-OFF AND FOR THE ON MAS NOT CORRECTED AS EXPE	SYSTEM EFFECT-OPERATION TOO LOW. THE FUEL PLON EXPERIENCED WAS HIGHER THAN NOULD BE EXPECTED FOR THE LOK RICH CONDITION AT LIFT-OFF AND FOR THE PU VALUE POSITION RECORDED IN THE PLIGHT DATA MITH THE RESULT THAT THE LOW RICH CONDITION WAS NOT CORRECTED AS EXPECTED.	MB HIGHER THAN NOW. ME FLIGHT BATA WITH	D BE CXPE THE RESUL	TED FOR T	NE LOK RICH COND!	
VEHICLE EFFECT-NOME, SUFFICI ITIONAL EMETIC OFFICATION.	WENTOLE EFFECT-NOME, SUFFICIENT BURNABLE PROFELLANTS REMAINED AT SUSTAINER CUT-OFF FOR AT LEAST 4.61 SECONDS OF ADD TIONAL ENGINE OPERATION.	ED AT SUSTAINER CUT-	A 101 10	1 LEAST 4.	BI SECONDS OF ADD	
CORRECTIVE ACTION-LAUGHORAL.						
PROPULSION-NA3-A/B AEBD SUSTAINER CONT ATOR	AEGO-0956/P5-501-00-09 CONTROLLER PU VALVE, POSITION INDIC ATOR	Fleat	\$ E	13/ETR YES 0 TO 310 YES	7E3 7E3	•
FALLURE MODE-ERRATIC OPERATI 1647 INSTEAD OF AT 41.8 DEFRI 05ITION ERNOR COLED MAYE BEED:	FAILURE MODE-FRRATIC OPERATION. FLIGHT DATA INDICATED THAT THE HS VALVE REMAINED AT 35 DEGREES DURING THE ENTIRE FL 1647 INSTEAD OF AT 41.0 DEGREES AS EMPECTED IN RESPONDE TO THE PU VALVE INDICATED LOW RICH (CLOSED) POSITION. THIS P OSITION ERROR COULD MAYE BEEN CAUSED BY AN EMPOREOUS PU VALVE POSITION INDICATION OR BY A FAULTY HS VALVE CONTROLLER	THE HS VALVE REMAINS HE PU VALVE INDICATI E POBITION INDICATIO	E LOK RIG	CARES DUR (CLOSED) FAULTY HS	ING THE ENTIRE FL POSITION. THIS P VALVE CONTROLLER	
SYSTEM EFFECT-OPERATION TOO TION AT LIFT-OFF AND FOR THE ON MAS NOT CORRECTED AS EXPER	SYSTEM EFFECT-OPERATION TOO LOW. THE PUEL PLOM EXPERIENCED WAS HIGHER THAN WOULD BE EXPECTED FOR THE LOW RICH COMDI ION AT LIFT-OFF AND FOR THE PU VALVE POSITION RECORDED IN THE PLIGHT DATA WITH THE RESULT THAT THE LOW RICH COMDITI N MAS NOT CORRECTED AS EXPECTED.	WAS HIGHER THAN NOW HE PLIGHT DATA WITH	DE EXPE	TED FOR T	ME LON RICH COMBI	
VENICLE EFFECT-NOME, SUFFICI ITIONAL EMEINE OPERATION,	VENICLE EFFECT-NOME. SUFFICIENT BURNALE PROFELLANTS REDAINED AT SUSTAINER CUT-OFF FOR AT LEAST 4.61 SECONDS OF ADD TIONAL ENGINE OPERATION.	ED AT BUSTAINER CUT-	OFF FOR A	1 16451 4.	81 SECONDS OF ADD	
CORRECTIVE ACTION-URRIGHM.						
PROPULSION-MAS-A/B AC- BUSTAINER BUST	AC-61-0063/22-502-22-06 SUSTATUER ENGINE CXIDIZER REGULATO R	CAPTIVE	9.E	32/87C T	YES ROCKETOTHE	***************************************
FAILURE MODE-OUT OF SPECIFIC US 8.30 PCT) MONIMAL BUSTAINE ON.	FAILUME MODE-OUT OF SPECIFICATION. BUSTAINER ENGINE THRUST, CALCULATED TO SEA LEVEL CONDITIONS, NAS 53,410 LBS (MIN 88 8.30 PCT! NOMINAL BUSTAINER THRUST 18 97,000 LBS (PLUS OR NINUS 3 PCT). THE BUSTAINER LOK REGULATOR NAS SET TOD L 20.	CALCULATED TO BEA OF HINUS & PCT). THE	DUBTAINER (ON REGULA	LEYEL COMMITTONS, WAS 33,410 LBS (WIN BUSTAINER LOK REGULATOR WAS BET 700 L	
SYSTEM EFFECT-OPERATION 100	TOO LOA-BUSTAINER ENSINE PERFORMANCE HAS APPROXIMATELY & PCT LOM.	E 188 APPROXIMATELY	• PCT LON			
WHICLE EFFECT-NONE.						
CONSECTIVE ACTION-THE LOW PE THE LOK REGULATOR.	COMMECTIVE ACTION-THE LOW PERFORMINCE OF THE BUSTAINER HAS TO BE CORRECTED PRIOR TO THE MENT PIRING BY READJUSTING HE LOK REGULATOR.	TO BE CORRECTED PRIC	24 TO TAC	CXT FIRIN	BY READJUSTING	1
					PA6E 0107	

CONVAIR DIVISION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

	0					2,00	•				892279					•			
VENDOR NAME VENDOR PART NO	ROCAETDYNE	DUALING THE TES					WENTELE OSCILLATION	HUTDOM PREMI	TO INCREASING AND		ROCKE TO VIE					ROCKE TO VIE	TAET TO THE EX		
1 5 E	÷ 8	SAN				2 €	7047 168	ני.	ñ 5		<u> </u>					5 8	8		
11 E 01F	1-4/COM RD 6	23 MITTE				13/613	ABHORNAL SECONDARY	D CYDYTW	TURELY DA		1-4/504					1-4/EDM 708	MER TURB!		
VEHICLE DATE DIF	61016	7 DRAIN P		E DAMAGE.		\$6 13 13	A USED BY	ICALLY AN	MON MEN		\$3110	RATION.				601103	M SUSTAIL		
DIF DATA BOURCE PART NUMBER	CAPTIVE	LINE BUICK DIBCOMEC		HICH DID MINOR WIREN		P.1961	RESBURE VARIATIONS C THIS ERRATIC OPERATI	HEINE OPERATED ERRAT	BTAINER ENGINE BHUTE		CAPTIVE	AKED DURING SPEE OPE				CAPTEVE	A HOT 646 LEAK AT T		
TEST/REPORT NUMBER FAILED COMPONENT NAME	AB-61-0001/14-533-63 FUEL BOOTSTEAP LINE DRAIN PITTING O-RING	FAILURE HODE-LEAK, EXTERNAL. THE BUBTAINER FUEL BOOTSTRAP LINE BUICK DISCONNECT DRAIN FITTING LEAKED DURING THE TES Due to a faulty o-ring.		WENICLE EFFECT-FIRE. A SMALL FIRE RESULTED FROM THE LEAK WHICH DID MINOR WIRING DANAGE.	ICED O-RING AND REPAIRED PIRE DANNER.	AERO-0750/F3-50E-00-04	FAILURE MODE-ERRATIC OPERATION. SUSTAINER LOK PURF INLET PRESSURE VARIATIONS CAUSED BY ABNORMAL VEHICLE OSCILLATION S RESULTED IN ERRATIC PURF SPEEDS AND DISCHARGE PRESSURES. THIS ERRATIC OPERATION WAS A SECONDARY RESULT OF LOSS OF VEHICLE STABILITY.	SYSTEM EFFECT-OPENATION STOPS PREMATURELY. THE BUSTAINER ENGINE OPENATED ERRATICALLY AND EVENTUALLY SHUTDOMN PREMAT RELY DUE TO ERRATIC FUSP OPENATION.	YEMICLE EFFECT-PREMIURE BUSTAINER ENGINE BAUTDOM. THE BUSTAINER ENGINE BAUTDOM PREMIURELY BUE LITUDE OF BUSTAINER ENGINE CAMBER PRESSURE OPCILLATIONS.		ETR-031/14-531-E3-5E BUSTAINER GAS GENETATOR BLADE VALV E BEALB	FUEL BIDE OF THE 866 BLADE VALVE LEAKED DURING APGG OPERATION.			LADE VALVE WAS REPLACED.	CTR-GE0/14-5E0-03-8E SAUTAINER TURBINE BEAL	MAL. POST-TEST INSPECTION DISCLOSED A MOT SAS LEAK AT THE SUSTAINER TURSINE CUTLET TO THE EX		
BYDTEN BUB-272TEN	PROPULSION-MA3-A/B SUSTAINER	FAILURE HODE-LEAK, ENTER T DUE TO A FAULTY O-RIMS.	SYSTEM EFFECT-NOME.	WENICLE EFFECT-FIRE. A	CORRECTIVE ACTION-REPLACED	PROPULSION-NAS-A/B BUSTAINER	FAILURE MODE-ERRATIC OPERATS RESULTED IN ERRATIC PUR 1	SYSTEM EFFECT-OPERATION STOPS PREMA URELY DUE TO EMPATIC PURP OPERATION.	VEHICLE GFFECT-PREMIUR	CORRECTIVE ACTION-NOME.	PROPULSION-MS-A/B MSTAINER	FATLURE MODE-LEAK. THE FUEL	SYSTEM EFFECT-NOC.	WATCLE EFFECT-NOIC.	CORRECTIVE ACTION-THE BLADE	PROPULSTON-NAS-A/B BUSTATINER	PAILURE MODE-LEAK EXTERNAL.	OVDTEN EVPECT-NONE.	

CONVAIR DIVIDION

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

WENCELE EFFECT-HOME. CORRECTIVE ACTION-THE MELL WAS REPLACED. PROPARATION-WAS ACTION-THE MELL WAS REPLACED. PROPARATION-WAS ACTION-THE WAS ALLOW WAS ACCURATE ACTION-THE WAS ACTION-THE WAS ACTION-THE WAS ALLOW WAS ACCURATE ACTION-THE WAS ACTION-THE WAS ACTION-THE WAS ALLOW WAS ACCURATE ACTION-THE WAS ACTION-THE WAS ACTION-THE WAS ALLOW WAS ACCURATE ACTION-THE WAS ACCURATE ACTION-THE WAS ACTIONATED AND ACTION AT A LEASE WAS ACTION. WAS ACTION-THE WAS ACTION-THE WAS ACTIONATED ACTION AT A LEASE WAS ACTION. WAS ACTION-THE WAS ACTION-THE WAS ACTIONATED AND ACTION AT A LEASE WAS ACTION. WAS ACTION-THE WAS ACTIONATED ACTION ACTION ACTION AT A LEASE WAS ACTION. WAS ACTION-THE WAS ACTIONATED ACTION ACTION ACTION ACTION ACTION ACTION	8181EN 848 - 8187EN	TEST/REPORT NUMBER PAILED COMPORENT NAME	DIF DATA BOUNCE	VEHICLE BITE DATE DATE DATE DATE DATE DATE DATE DA		¥ ¥	PRI VENDOR HANE OTH VENDOR PART NO	
CONTICTIVE ACTION-THE BELL WAS REFLACED. FROM ASSIGNMENT ACTION-THE BELL WAS REFLACED. FROM ASSIGNMENT ACTION-THE BELL WAS REALING TO A CASH THE BRANCH TEST AND THE BUSTAINED TO FIGH INTO THE BUSTAINED TO PAGE INTO THE BUSTAINED TO FIGH. FORLY TO DAMAGE OCCURRED. FALLURE MODE-INTERNAL LEAR. FALLY OWER WAS THE IN THE ENAUNTEDAM, BUT NO DAMAGE OCCURRED. FALLURE WOLLINGTEN THE THE CASH THE CASH THE THE WAS THE	VEHICLE EFFECT-HOME.					1		
WORKELING MODELINITIONAL LEAR, PARLIT ONCE VALVE PERMITTED FUEL TO FLOM INTO THE MUTALINES EDMUNTERATOR. FAILURE WOOFLINITIONAL LEAR, PARLIT ONCE VALVE PERMITTED FUEL TO FLOM INTO THE MUTALINES EDMUNTERATOR. FINITION FITTED FIRE SHALL FIRE CASADAVE AT ENGINE MUTTOON, BUT NO DANNER OF CHALL, MODEVER NO DANNER C OCCURRED. VEHICLE STEECT-FIRE SHALL FIRE CASADAVE AT ENGINE MUTTOON, BUT NO DANNER COCCURRED. CORRECTIVE ACTION—CHECK WALVE WAS REPLACED. FROM LIGHTON MALVE WAS RECORDED TO FIRM MALVE WAS RECKETONE TO OPPORT THE WAS LAND WAS REAL THAN WAS RECKETONED TO OPPORT THE WAS LAND WALVE. FAILURE WOOFLEST WAS LIGHTON WAS LAND MALVE. FAILURE WOOFLEST WAS LAND WALVE. FAILURE WOOFLEST WAS LAND WAS LAND WAS LAND WOOFLEST WAS LAND WAS LAND WOOFLEST WAS LAND WAS L	CORRECTIVE ACTION-THE SEAL							
FAILURE MODE-INTERNAL LEAR, PAULTY ONCEX VALVE PERMITTED FUEL 10 FLEM HITO THE BUSTAINER EDANGERIA. SYSTEM EFFECT-HIGH TEPREDATURE EDVINONMENT, FIRE 1N THE ENAUSTERATOR DAE TO THE PREMERE OF FUEL, HOMEVEZH ND DANNE COCUMED. VOICEE CITECT-HIGH TEPREDATURE EDVINONMENT, FIRE 1N THE ENAUTOMA, BUT ND DANNE OCCUMED. CORNECTIVE ACTION-ONCEX WALVE WAS REPLACED. MOPOLASION-MAS-A-6 FAILURE MODE-PREDATURE CHERATION. A LODGE CANIAL CABLE COMECTION AT THE RCC ACCELEROMETER REBALTED IN REDUCED CITCUIT INFORMACE. SYSTEM EFFECT-PREDATURE CHERATION. A LODGE CANIAL CABLE COMECTION AT THE RCC ACCELEROMETER REBALTED IN REDUCED CITCUIT INFORMACE. SYSTEM EFFECT-PREDATURE CHERATION. A LODGE CANIAL CABLE COMECTION AT THE RCC ACCELEROMETER REBALTED IN REDUCED CITCUIT INFORMATION. CONNECTIVE ACTION-TIGHTED RCC COMMECTER. PROPALSION-MAS-A-8 ETH-ORDANIAL AND ETH-ORDANIAL CABLES-IE-RE AND COMECTIVE ACTION-TIGHTED RCC COMMECTER. PROPALSION-MAS-A-8 ETH-ORDANIAL AND ENTRY AND AND AND AND AND AND AND CAS LEALAGE PAST THE LON POPPET PRICE PYPEZT-MOME. SYSTEM EFFECT-MOME. WENTELLE EFFECT-MOME.		IC-60-0042/31-506-A1-08 SUSTAINEN TURBOPURP NO.4 BEARING P IEL COOLANT CHECKVALVE	1	M 901014	D1 / DYC	5 g		1000
SYSTEM EFFECT-HIGH TOWERATURE DAYINGMENT. FIRE IN THE ENAUSTERATOR DIE TO THE PRESENCE OF PUEL, HOMEVEA HO DAMME COCCURIED. VOLICLE OFTECT-FIRE. SHALL FIRE CASENVED AT ENSINE SHATDOMI, BUT NO DAMME COCURED. COMMECTIVE ACTION-ONCEX MALVE MAS RETLACED. FROMUSION-MAS-A-A-B RCC ACCELERORETER COMMECTER (ACCELERORETER RESALTE) IN REDUCED CONTINUE WOOD-PREDATION A LODGE COARIAL CABLE COMECTION AT THE RCC ACCELERORETER RESALTED IN REDUCED CONTINUE WOOD-PREDATION STOPS PRODUCTURE DEMONSORIA RECORDING RESALTION IN REDUCED CONTINUE CONTINUE CONTINUE AND THE NEXT PRODUCTURE. SYSTEM OFTECT-PROMINE GREATION STOPS PRODUCTUR DEMONSORIA RECORDING RESALTION IN PRODUCTURE AND THE SALTIMENT OF FIRING. CORRECTIVE ACTION-TIENTDEED RCC COMECTOR. PROPALSION-MAS-A-A-B ETH-DEA-14-284-12-8E CAPTIVE ROOT FIRING. CORRECTIVE MODELLEAR. THE SALTIMENT GAS EXPERTED LON FORFET ROOT FIRING. PROPALSION-MAS-A-A-B REPORTATION INJECTION PRESSURE INDICATED HOT GAS LEARGE PAST THE LON FOPPET ROOT BY STATEM OF PRESSURE INDICATED HOT GAS LEARGE PAST THE LON FOPPET ROOTED THE SALAGE PAST THE LONG. WENDELD BY STATEM OFTECT-HOME.	FAILURE MODE-INTERNAL LEAK	K. FALLIY CHECK YALVE PERMITTED FU	JEL TO FLOW INTO THE	SUSTALMES	CMAUST	RATOR.		
FIRE. SHALL FIRE AL-COECT VALVE VARA AC-60-00 RCC ACCCI MATURE CRETATION. EDATION STOPS PRED REPAITOR STOPS PRED REPAITOR SUSTAINER R. THE SUS	SYSTEM EFFECT-MIGH TEMPERA E OCCURATED.	ature environment. Fire in the ein	IAUSTERATOR DUE TO T	NE PREBEN	i or fuel	, ROE,	ER NO DAMA	
AC-60-00 ACC ACCC MATURE CPERATION. BATION STOPS PRID REPATURE SUSTAINED H-TIENTENED RCC CO ETR-CRATINE R. THE SUSTAINER (BLADE MALVE. ME.	WAICLE EFFECT- FIRE. SHAL	LL PIRE COSERVED AT EXCINE BNUTDON	At, BUT NO DAMAGE OC	CURRED.				
AC-60-00 RCC ACCE MATURE CPERATION. EDATION STOPS PRED REDUTURE SUSTAINED R. THE SUSTAINER (BLACE MALVE. ME. OME.	CORRECTIVE ACTION-CHECK VA	ALYE WAS REPLACED.						
ENATURE CRERATION. CRATICH STOPS PROD REMATURE BUSTAINED ETH-ORAZI BUSTAINER (BLACE MALVE: ME.		AC-40-004E/31-905-AE-05 RCC ACCLLENONETER CONNECTOR	CAPTIVE	5E 90101E	81/8VC 3.24	7. O	ae to the	1
SYSTEM EFFECT-OFCRATION STOPS PREDATURELY- ERROREOUS RCC COUNT SCHEDALTING IN PREDATURE CHAINE SHUTDOMN. WENTICLE EFFECT-PREDATURE SUSTAINER EASTAINER SHUTDOMN- ABORTOD HOT FIRING. CORRECTIVE ACTION-TISHTEDED RCC CORRECTOR. PROPULSION-NAS-A/B ETH-ORA/14-584-12-8E CAPTIVE 601007 1-4/CDAM YES ROCKETOYNE BUSTAINER BUSTAINER AND ECHEMATOR LOK POPPET OF 0.4 FAILURE HODE-LEAK. THE SUSTAINER EAS EEGENATOR INJECTION PRESSURE INDICATED HOT EAS LEAKAEE PAST THE LOX POPPET PRI SYSTEM EFFECT-HOME. WENICLE EFFECT-HOME.	FAILURE MODE-PREMATURE OPECUIT INFERENCE.	ERATION, A LOOSE CONTIAL CABLE CON	MECTION AT THE RCC	ACCELERON	TES REAL	5 ₹	AEDUCED CIR	
VEHICLE EFFECT-PREDATURE BUSTAINER DIGINE SHUTDOMS- ABORTED HOT FIRING. CORRECTIVE ACTION-TIENTEDED RCC COSECTOR. PROPULSION-MAS-A/B ETH-DEA/14-5E4-1E-8E CAPTIVE 601007 1-4/EDMA YES ROCKETDYNE BUSTAINER BUSTAINER 648 6E) 624 FAILURE HODE-LEAK. THE SUSTAINER 648 6E) ERATOR INJECTION PRESSURE INDICATED HOT 648 LEARAGE PAST THE LOX POPPET PRI SYSTEM EFFECT-HOME. SYSTEM EFFECT-HOME.	SYSTEM EFFECT-OFERATION ST	TOPS PREDATURELY- ERROREGUS RCC CO	JANT RESERVED REMA	134 14 2	EDATURE (3674 B	ARYTOOM.	
CORRECTIVE ACTION-TIENTDRED RCC CORRECTOR. PROPULSION-MAS-A/B ETH-CREA/14-524-18-8E CAPTIVE 601007 1-4/EDM YES ROCKETDYNE 8USTAINER RD3 NG D.8 FAILURE MOE-LEAR. THE SUSTAINER SAS SEDERATOR INJECTION PRESSURE INDICATED HOT SAS LEARAGE PAST THE LON POPPET PRI SYSTEM ETPECT-MOME. SYSTEM ETPECT-MOME. WENICLE ETPECT-MOME.			HOT FIRING.					
PROPULSION-MAS-A/B ETH-CREA/14-SE4-IE-RE CAPTIVE 601007 1-4/EDNA YES ROCKETOYNE BUSTAINER BUSTAINE		ID RCC COMECTOR.						
FAILURE MODE-LEAK. THE SUBTAINER EAS EDERATOR INJECTION PRESSURE INDICATED MOT EAS LEAKAEE PAST THE LON POPPET PRI OR TO OPENING THE BLADE VALVE. STREET EFFECT-MOME. WONICLE EFFECT-MOME.	-	ETR-ORA/14-524-12-9E BUBTAINER GAS GENERATOR LON POPPET		401001	1-4/CD44 RO3 0.4	YES ROOM	KETOVNE	
STATEM EPPECT-MOME. WENICLE EPPECT-MOME.	FAILURE MODE-LEAK. THE SUB- OR TO OPENING THE BLADE WAL	STAINGR GAS GENERATOR INJECTION PRILYE. LYE.	KESSUME INDICATED MO	T CAS LEA	ACE PAST	34 LQ	POPET PRI	
WHICLE DIFECT-HOME.	SYSTEM EFFECT-MOME.							
	WHICH DIECT-HOM.							
CORRECTIVE ACYTON-WHENDAM.	CORRECTIVE ACTION-UNKNOWN.							
PROPULSION-1445 CAPTIVE 601007 1-4/TDVM VCB ROCKETDVME PROPULSINGE ROCKETDVME RDS NO		TTR-024/14-124-12-3E	CAPTIVE	60 1007	1-4/DM	27 G	r e to vice	
FAILURE HODE-LEAK. THE SOO BLADE VALVE LEAKED FUEL PRICH TO CPENING THE VALVE.	FAILURE MODE-LEAK. THE 866	_	OPENING THE VALVE.					
**************************************	SVSTEM EFFECT-MOME.							
910 314							PANK 0100	,- -

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845-87EH	TESTARFORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE SITE DATE DATE	817E	ī š	VENDOR HAME VENDOR PART NO	
WHICLE EFFECT-MOME.							537300
CORRECTIVE ACTION-URNORM.	Í						
PROPULATOR-MA-A/B BUSTAINER	AC-60-0037/36-511-A6-02 THEUST CHAIGES	CAPTIVE	EC 60100	26/3 /C	F 8	TES ROCKETOTHE	į
FAILURE MODE-LEAR-EXTERN ST FIRING IMPECTION.	ENMAL- FIVE PIN NOLS LEARS NENE FOUND APPROXIMATELY & INCHES BELOW THE INJECTOR FACE DURING PO	APPROKIMATELY 6 100	HER BELOW	NE INJEC	8	PACE DURING PO	
STSTEM UFFECT-NO.C.							
Wolcue CPTC1-NOE.							
CORRECTIVE ACTION-NECESS	ESSARY REPAIRS NERE MADE PRIOR TO SUBSEQUENT TESTS.	EQUENT TESTS.				•	
PROPULSION-NAS-A/B SUSTATUER	ETR-021/14-317-E2-3E BUSTAINES GAS GENETATOR TURBINE SP IN CHARGE	CAPTIVE	41000	1-4/00m f03 0.64	F 8	VES ROCAETOVIE	•
FAILURE MODE-FAIL DURING	FAILURE HODE-FAIL DURING OPERATION. THE SPIN CHARGE EXPLODED DURING THE BUSTAINEN ATART BEQUENCE DUE TO IMPROPER GR LADING.	D DURING THE BUSTAL	MESS START (EQUENCE	2	IO INFROPER GR	
ENSTEN EFFECT-OFFIATION ER SUFFERED ONENEETING	BYSTEM EFFECT-OFERATION DOES NOT START. THE SUSTAINER AND VERNIER ENGINES DID NOT START. THE SUSTAINER THRUST CHAINS ER SUFFERED OMEDIKEATING DANNEE AND THE LIVE BINGOLD MAS DANNEED BY FRACHENTS FROM THE SPIN CHARGE.	ERNIER ENGINES DID D BY FRACHENTS FROM	NOT START.	THE SUST	<u> </u>	THRUST CHAIG	
WENICLE EFFECT-PROMITURE	WENICLE EFFECT-PREMIURE PROPULATION CUTOFF. THE TEST WAS TERNINATED BY OBSERVER CUTOFF.	ENLINATED BY COSERVI	A CUTOFF.				
CORRECTIVE ACTION-THE BATTLE PARTY DARKS HER DIGINE AND OTHER HARD	CORECTIVE ACTION-THE SPIN CLARKE NAS INCORRECTLY GROUDED MEN HOSFIED FROM THE SCREW-IN TYPE TO THE FLANKE TYPE. The Reduining spin clarges of this type nede inspected by the Vedoch. The necessary repairs nede made to the sustai En engine and other mandhane.	MEN HOUPTED FROM	THE SCREW-!	IN THE T	0 M	FLANKE TYPE. TO THE BUSTAL	
PROPULSION-NA3-A/B SUSTAINER	AC-60-0030/82-905-A5-02 BUBIAINER HEAD BUPPREBBION VALVE	CAPTIVE	### ### ### ### ######################	18 / SYC	20	YEB ROCKETDYNE MO	***
FAILURE MODE-FAIL TO GRE 4 DECHEES FOR 0.05 SECON EMCE OF MATER.	FAILUNE HODE-FAIL TO GPENATE AT PRESCRIBED TINE. THE H. B. VALVE STARTED TO OPEN AT THE PROPER TINE THEN HUMS-UP AT 4 decrees for 0.05 becomb union delayed the start beoudice. Indpection of the H.B. Valve actuator revealed the pres Dec of uniter.	MALVE STARTED TO OF IMMPECTION OF THE	EN AT THE F H.S. VALVE	MOPER 11 ACTUATOR	A S	ICH HUBE-UP AT	
SYSTEM CPPECT-OFERATION	SYSTEM CPPECT-OPERATION STARTS TOO LATE. THE TURSINE OPINGER BURNED OUT AND THE SUSTAINER EMSINE PAILED TO START.	R BURNED OUT AND TH	C SUSTAINED	CORTA	212	ED TO START.	
WHICH CPECT-REMINE	WHICLE CPECT-FREMIURE PROPILATION CUTOFF. THE WAT HAS TENTIMIED BY AN OBSERVER CUTOFF.	HEINATED BY AN COM	RVER CUTOFF	_•			
CORRECTIVE ACTION-THE H.	H.S. WALVE, IMITER PAEL WALVE, AND SUSTAINER HYDRAULIC CONTROL MANIFOLD PACEAGE VERE REPLACE	MTAINER HYDRAULIC	CONTROL MAN	IPOL PA	375	MENE NEPLACE	
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GENERAL DYNAMICS CONVAIR DIVISION

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BIPTICIATIES REVIEW-PROPULSION SYSTEM-AIRBORNE

27.2.TM 3.46-27.3.TM	TEST/FEPORT MAMBER PAILED COMPONENT NAME	DIP DATA BOURCE PART NUMBER	WHICLE DATE DIF	111E DIF	WEHICLE BITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	A -	
PROPULATOR-NAS-A/B BUSTATMER	ETR-020/14-516-82-86 BUSTAINER THRUST CHANGER TUBES	CAPT2 VE	119009	1-4/CD4A PD8	1-4/EDIM YES ROCKETDYNE RDS NO	•	9224
FAILURE MOE-STRUCTURAL.	FAILUME MODE-STRUCTURAL. POST-TEST INSPECTION NEWBALED BEVERAL BPLIT FUEL TIBES AND PIN MOLE LEAKS IN THE CHANBER.	DAL PRIT FVE. TUBE	WILD DIV	HOLE LEAR	a IN THE CHAIR		
8:31Es EFECT-101E.							
World EFECT-HOE.							
CORRECTIVE ACTION-THE CH	CORRECTIVE ACTION-THE CHANGER HAS REPAIRED BY SILVER SCLEENING THE SPLITS AND PREMATERING THE PIN HOLES.	THE THE SPLITS AND	PREMATERIA	E THE PIN	HOLES.		
PROPULSICH-1943-A/B BUSTATUER	ETR-018/14-518-02-8E ens etyteaten Lon resulaten	CAPTIVE	627.00	1-4/ED44 808 9.4	YES ROCKETDYNE	-	005231
FAILURE HODE-ENNATIC OFFIAT UTOFF.	CHATION, REFULATOR DESCUARCE PRESSURE ENDICATED 100 PSE PEAK-TO-PEAK OSCILLATIONS PRICA TO C	K 1001CATD 100 PS	PEAK-10-P	EAR OBCIL	LATIONS PRICA	υ 2	
BYSTEM EFFECT-EMATIC OF	SYSTEM EFFECT-EMATIC OPERATION. NELATED 6.6. PARAMETERS AFFLECTED THE OSCILLATIONS.	PLECTED THE OSCILLA	11006.				
World Ditter-104.							
CORECTIVE ACTION-REGULATOR	ATOR HAS REPLACED.						
PROPULSION-IN.3-A/B SUBTATINEE	AC-80-0033/28-508-A3-02 SUSTATINEZA LUBE OIL MEMIFOLD, PRESS UNE SEDISE LINE	CAPTIVE	600309	\$2/37C	VES ROCKETOVICE ND	<u> </u>	152240
FAILURE MODE-OUT OF TOLEDAN CONTANTMENTED WITH PIECES OF	FAILURE HOE-OUT OF TOLEDANCE. BUSTAINER LUNE OIL DID NOT REACH INE MINIMA NEDLINE REQUIREMENT. THE BENNE LINE WAS CONTAMINATED WITH PIECES OF AN O-RINE REAL.	WACH THE MINIMAN ME	Drive wer	INDOM.	THE SENSE LINE	i	
SYSTEM EFFECT-OFFIATION 100	POD LOM.						
WOITCHE EFFECT-HOME.							
CORRECTIVE ACTION-URLICHE.							
PROPULATOR-MA3-A/B WINNI GR	604-APZ64-082/01-601-00-15 THENET CHANGER	PLIGHT	34° 440831	D1 ATS	5 Q		
FAILURE MODE-ERRATIC OPDIATE	FAILURE HODE-ERRATIC OPERATION. BOTH VERNIER THRUST CHARGER PHESSURES DECAYED FROM 306 PSIA TO 206 PSIA AND ACCOMES In to see Psia setheer 800.6 to 861.4 Hecombs. Becays not replected in Dasing Tark Pressures.	PLECTED IN ENGINE T	PROF 306 PARTS NA	11	O POIA AND ARC	3	
SYSTEM EPPECT-OPERATION 100	700 t.01.						
Waited OFFET-HOM.							
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	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE
	DIFFICULTIES REVIEW
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PRI WENDOR MAINE OTH WENDOR PAR? NO	19944	TES FLEXIBLE METAL SPOREST	## # \$700 0 74 E	TES 094240	ECR VALVE DID 917	LEO LEAKED ENCESA	4E.6	TED A TRANSITORY Ma in Excess of			774 P-13E78	LOWISE BEVERSE P
917E		FACTORY TE	NACO OY PLES	13/CTR VE	FIRE PUEL ON	DEDIT VALVE AL	26/84C 45	SAURE CHIEF			ME/87C 71	CTIONED BY AN
		# 50 E	MG A0 C.	902110	VERMICE DY BODY.	E. RDLAG	¥ 6019	CHANG MESA				TAE MALPUM
DIF DATA BOUNCE PART HUMBER		FAR 248 87-08404-203	1.0E WICH WAS CONTIS	COMPOS TE-PRO/DPL E7-02402-3	I'VE PUEL LEAKED PAST INSEAD TOMAND VALVE	TO REPLACE CAECK VALI	CAPTIVE	MIPOLD REGULATOR DII PRESSURIZED, THE MAI		PETON TO RUN BO4.	CAPTIVE .M.	IBBURIZATION CHECK VA
TEST-REPORT HINGER PAILED CONFORENT MANE		A-90-06-107 HORFTERIBLE, V/ELOEDUPPLY, SELLOM	UNIT METECTED FOR ENTERNAL LEARANG UNION UND CONFINNED AND CAMBED DY PLENING DETYCHO THE EN LOAD MATERIAL. 1330 ANTHONIZES REDESIGN MELEANED 3-3-42 AS P/N 27-02423-3.	AA41-0E1.7F9-98H-01-36	FAILURE MODE-LEAR-CATERNAL, DURING PUEL TANKING, EXCESSIVE PUEL LEAKED PAST VERHIER ENGINE FUEL CNECK VALVE END FITT TING. INVESTIGATION BROKED CLACKS PROR SAFETY MINE HOLES INMAND TOWARD VALVE BODY. 3YSTEN EFFECT-NOVE.	VENICLE EFFECT-COMPOSITE DELAYED. TANKING TEST DELAYED TO REPLACE CHECK VALVE. REPLACEDENT VALVE ALSO LEAKED EKCESS Vely and has replaced. Thind valve acceptable. Corrective action-luknoma. Operationa report valiten against leaking valves.	AC-41-CO94/16-303-A3-01 VEHILER CONTING, PRESSURE REMANDE	FAILURE HODE-FAILED DURING OPERATION: VERHIER CONTROL HANIFOLD REGULATOR DIRCHARGE PRESGURE EMIRITID A TRANSITORY Resoure increase undy the Bustainer Controls Bottle has pressurized. The Mazinum Pressure obtained has in excess of The Recorder Limit of 800 psis.	1 TOD REGG.	CES THE WERHIER CONTROL REGULATOR PRICE TO RUN BOA.	AC-41-0001/82-509-44-06	FAILUME MODE-PAILED TO OPERATE. THE VERHIER LOW TAME PRESSURIZATION CHECK VALVE MAIPUMETIONED BY ALLOWING REVERSE P Low Learny, This medults in LOW PASSING THAN THE PREUMATIC MANIPOLD AND 1870 THE WENRIER PURE TAME, ASA COMMEMBER
3721En 346-8721En	CORRECTIVE ACTION-WOME.	MOPULATON-MAS-A/B WIRHER	PAILURE MODE-STRUCTURAL, UNIT REJECTED DURANCE LINIT OF THE BELLONS INVESTIGAL. CORRECTIVE ACTION—ECP 1530 ANTHORIZES	MOPULSI CH-NAS-A/B WENLER	FAILURE MODE-LEAR-EXTERN TIME. INVESTIGATION BHOM SYSTEM EFFECT-MORE.	MELY AND WAS REPLACED. 1 CORRECTIVE ACTION-LINEMED.	MOPULATON-MA-A/B WINIER	PAILURE MODE-FAILED DURI PRESSURE INCREASE WED TO THE RECORDER LIMIT OF BE	NEATEN EFFECT-COURTON TOO MIGH.	CORRECTIVE ACTION-REPLAC	PROPULSION-MS-A/B WINNIES	FAILURE HODE-FAILED TO C

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	DESCRIPTION DOTOTAL PRINTED OF LANGUAGE		•				
8767EA 848-6787EA	TESTATEMENT MANGES	BIF BATA BOUNCE PHAT MANBER	WOIGLE BITE PRE	11 A 11		Window Australy	
gvsnen eppter-entransen.							1
MOSTOLE SPETET-LONG OF 18	OF VERTOLE JOTHANITY. THE EMPLOYER CAUSE MARRIANE DESTRICTION OF THE VEHICLE FUNDING OF STAT	THE PRODUCT BEST	ETION OF	ğ			
CONSECTIVE ACTION BONDLE	ORCH THAT WERE HISTOLIGE IN THE	IN THE PRESENTANTOR LINE.	.2				
meral compete	M-41-4666/40-162-46-46 Netel Chieff	CAPTIVE	1	24	53		
PATICATE MODE-OUT OF EMPECTED TEST WALLE. E SERVES TESTING MODE MOTED THE CAUSE OF ME PARKE MEMBERS.	ENTETED TEST WAVE, UNDINAL VERSIEN COTATE CHARACTENISTICS NOT PREVIOUSLY CONERNED ON PYCANDER IE NOTED THE CAUSE OF THE BYSTEN EPPERT IS USUCIAN NOWEWER IT IS BUSTECTED TO BE A PLAKTICON OF T	NET CHARCTER) STICE	1 10 808F	CTED TO	DE A PURE	Printer	
SYSTEM EPTECT-EMANTE OF	IC OPERATION-POLICIMINE AN UNIQUALY BUSH HISE 1.5 SECONDS AFTER CUTOFF.	AN UNAUMLY BEATH CHARGE PRESENT DECAY, BOTH VERHIER CHARGES SECAYE CHIEFLY.	ECAY. BOTH	· VERBULE	I CAMBERS	HOICH	
VENICLE EFFECT-NOIC.							
CORRECTIVE ACTION-HOME.							
Propulsion-M3-A/B Verifer	ACCIGEDE INE 18-141-09	CAPTIVE	9E	91./8YC	ភូមិ		•
PAILURE WIDE-STRUCTURAL-	FAILUME WIDE-STRUCTURAL- THE UP CRACKED & MATS WIDE DISCONIDED DURING POST TEST SECURINS.	DEED BURING POST TES	17 SECURITY				
SYSTEM OFFICE-MOME.							
WHICHE OFFICE-HOLE.							
CORRECTIVE ACTION-ADRINDMA	•					•	
PROPULSION-MS-A/B	LIGUS ORTOEN VENIER AUPLY LINE.	P.1647	% 61110	13 Æ18 148	99		
PAILLARE MODE-PAIL BURING	FAILLME MODE-FAIL BURING CPERATION, A VERNOER LIBUID CHYSEN SUFPLY LING RUFTURED BUE TO ENCESSINE BOLL OR VIBRATION) REPULLING FROM LOBS OF BUBIAINER AND VERHIER EMSINE HYDRAULIC ACTUATING FRESSUME AFTER BOOSTER STASING.	BUFFLY LINE RUFTURE	B DUE TO	CACESSIN COSTES	FACE OR '	riena 1 ton	
STATES OFFICE-SOLLETION OF LA LOS LINE SUFFICED CAMBLES TOO DAY ONTIL SEPLETION OF THE WA PLOW FROM THE SUBSTRINESS LOSS AS	DESTEN CYTECT-ECTLETION OF LIGHTS SUPPLY. THE LIGHTS GETHEN LINE BETHEN ONE WERNIER ENGINE AND THE COMMON WERNIER LAS ENTIRE THE CONTRACTED AT PARTIAL THE DESTENDED CANNING PERMANENT OF THE WEIGHT LOSS OF BACK PRODUMENT IN THE WEIGHT DATES AND INCREASE THE PROPERTY LINE CANNED AN INCREASE THE PLOY THAN THE BUSTAINER LONG HERMAND AND THE WEIGHT TO THE WEIGHT LASS WE WEIGHT OF THE WEIGHT WE SHEVATION AT THE BUSTAINER GAS CENERAL	LINE RETUEDS ONE WE HE CONCENED, THE HEAVETHE TO LOST WITH EDALTHE TO LOST WITH	ONCE COS. ONCE COS. IL ASPICA A	M OFFER CAN	ME COMMEN MED AT PAI MED AN INCO	PARTIAL THE HERELAE IN THE SENERAL	
WATELE EFFECT-MEMBER FROM JANUARY PROPERTY CO SECULTURE BENEFICIAL CONTRACTOR CONTRACTORS	France Programmes Suprigions, 1,16950 OKTOCH SPARTATION CANORS BY LEARANG PROM CHE OF The Ministra SW IN SECURITIES Viginists Empire SWYSCHM PELLONID BY SMPTHIMEN EAS COMMISSION ONVERSA WHICH TEALSTONS.	PARENTIES CAUSES	T LEALANCE AS BELLINE		on the same	Tonics or	

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15 Jun 1866	DIFFICULTIES REVIEW-PROPULSION STATEM-AIRSORNE	LSION SYSTEM-AIRBOR	¥			
M31676 - 616	TEST/REPORT MUSER PAILED COMPORENT HAND	BIF DA.A BOURCE PART HANDER	VENICLE DATE DIF	11 DI O	PRE VENDOR NAME OTH VENDOR PART NO	
CONNECTIVE ACTION-INFRO	CORPECTIVE ACTION-INFROVED DESIGN OF SUSTAINER/VERNIER HYDRAULIC SYSTEM TO PRECLUDE EXCESSIVE ROLL OR VISRATION.	NULIC BYBTEN TO PRE	כרוסב באכנ	BAINE BOLL	OR VIBRATION.	03160
Propusion-M3-A/B Venies	CTR-020/14-120-D3-BE VENNICE HTTEROG, CARTEDAE DIAPHAA GH	CAPTIVE	801108	1-4/EDIM 7E	1-4/EDIA YES ROCKETDYNE	1
FAILURE MODE-FAILED DUR	PAILURE MODE-PAILED DURING OPERATION. THE VS NYTHEROG. BIRPHRARM TORE LOSSE DURING THE TESTS.	NAME TONE LOOSE DUR	# 7f #	579.		<u></u>
SYSTEM EFFECT-CONTABION TICH.	7196.	·				
WONCLE EFFET-HOM.						
CORRECTIVE ACTION-VARIGUES.	j				•	
MINIER PAS-LAS I CH-MS-A/B	ETR-023/14-823-12-1E VENUER HYPEROG, CARTRIDGE DIAPHAA GHI	CAPTI VE	6 10109	1-4/ED44 YE	TES ROCKETBYNE	<u> </u>
FAILURE HODE-FAILED DUR!	FAILURE HODE-FAILED DURING CREDATION. THE VE HTPERIOL BIAPHRAGN TONE LODGE AND LODGED IN THE LONGR PART OF THE HTPE.	TAGH TORE LODGE AND	1.006.00 18	THE LONG	PART OF THE HYPE	
SYSTEM EFFECT-CONTABINATION.	1101.					
WHICH EFFECT-HOME.						
CORRECTIVE ACTION-LAUGUM.	:					
MONLSI CH-M3-A/B	ETR-024/14-324-12-92 Vernier htfereg. Carridge Diaphea Ca	CAPTIVE	40100	1-4/EDA Y	VES ROCKETOVNE NO 050500	į
FAILURE MODE-FAIL DURING OL CARTRIDGE.	FAILUNE HODE-FAIL DURING OFTRATION. THE VE HYPTRAGE, BIAPHRABH TORE LOOSE AND LOBSTD IN THE LOADE PART OF THE HYPTRA L. CARTRIDGE.	HI TORE LOOSE AND L	7 M 1 0 3 0 1 M 1	HE LONGS P	LAT OF THE HYPERS	- <u></u> -
878TEN EFFECT-CONTANEMATION.	7101.					
WHICH EFFET-HOM.						
CONSECTIVE ACTION-UNLADOR.	4					
Moturation-map-a/B Were GR	CTR-682/14-382-44-46 CAPTAC BISC 27-2-889-13	CAPTINE 27-028-13	9810	1-1/204	TES ROCHETOVIEE	 -
PAILURE HERE-STONETHERAL DIE	SEPTURE DISK NEED	LOOSE AND LEWED BOIN STIELM IN THE DUPLY LINE.	I	7 LIME.		
Prosts evect-contamporter.						
SENCIA BITICI-MAR.	:					
	-				Seek One	
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848-878H	TESTARCOST MAREN FAILED COMPOSENT MANS	DIP DATA BOUNCE PAPT NUMBER	VENICLE BITE DATE DATE DATE DATE DATE	11 ME 01 P	2 50	PRI VENDOR MANE OTH VENDOR PART NO	
CORRECTIVE ACTION- URLIGHM.	į						
PROPULSION-MAS-A/B WEINIER	CTR-663/14-823-46-8E VERNICA HTFERGOL CARTILDGE DIAPMEA 6ta	CAPTINE	90100	1-4/CDM	ž g	BOCKET9VHE 686986	į
FAILURE MODE-FAIL PURING OL CARTRIDME.	S OPCRATION. THE YI HYPERECL DIAPPRARM TORE LOOSE AMS LODGED IN THE LOGER PART OF THE HYPERS	H TORE LOOSE MB L	004ED 1N 1	H LOER	1	OF THE HTPERS	
STREET EFFECT-CONTAIGNA	1106.						
WONCLE OFFICT-HOME.							
CORRECTIVE ACTION-URHOLM.	į		•				
Propusion-m3-a/B Vernice	AE80-0648/TC-9CO-0E-008 CIRCUIT BOARD	COSTOS I TE-PACTORY	03600	FACTORY	88		į
FAILURE MODE-FAIL TO OPPOSITE OF CATES TO THE TOPP LOGIC BOARD IN THE TOPP LOG	FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. AT 1428S THE VERNIEM CUTOFY LAMP DID NOT ILLUMINATE, THE VERNIEM C Catrol lamp did not extimevizat and the Bolo Tank Presbure lamp did not extimevizat. All caused by a faulty verniem cu Topy logic board in the A/B programmer.	E VERNIEN CUTOFF L	AND OTO NO NO. ALL CA	18 09 BY	M 76.	CUTOFF LAMP DID NOT ILLUMINATE, THE VERNIER C EXTINGUIBM. ALL CAUSED BY A FAULTY VERNIER CU	
SYSTEM EFFECT-OPERATION	DOES NOT START- PROPULSION SYSTEM DID NOT RECEIVE VERNIER CUTOFF SIGNAL.	ID NOT RECEIVE VERN	101 CUTOT	SIGNAL.			
VEMICLE EFFECT-COMPOSITI	E RESCREDUED. COMPOSITE RE-BAN.						
CORRECTIVE ACTION-THE M	CORRECTIVE ACTION-THE WENTER CUTOFF LOSIC BOARD WAS REPLACED IN THE PROSAMERY.	D IN THE PROGRAMME	ė				
PROPULSTON-NAS-A/B	AC-40-0028/82-501-A1-02 Wenier Control Bolenoid, Pin	CAPTI VE	## \$00718	32/5 YC	20	YES ACCULTOYING	****
PAILURE MODE-SMORT, ELEC	FAILURE MODE-SMORT, ELECTRICAL, THE MOT PIN (PIN A) OF CONTROL BOLEHOID WAS SROUNDED TO THE CASE OF PLUS POS.	ia. Balendid was er	or about	THE CASE	8		
BYSTEN EFFECT-OPERATION	DOES NOT START.						
WASCLE EPTECT-FREDATURE	E VERNICE CHAINE CUTOFF.						
CORRECTIVE ACTION-LARKDAM.	·						
PENIES	129-10-030-12-13-17-0-121 WI 141-0-13-17-77-0-0-0-121	COMPRET 7E-PACTORY	21 F 952.8	PAC 708 V	88		
FAILURE MEDE-FAIL TO OPE	FILLING MEDE-FILL TO OPERATE AT PRESCRIBED TING-SOLO PAIR PRESSURIZATION MAS NOT INDICATES ON THE CONTROL LAMP AT S. M. M.CORDS AND AT SAS SECONDS. THOUGHT EAWED BY LOOKE CONSECTION IN AIG.	EDDURIZATION MAD M. Sign in Aug.	9 161CA	8 8	8	THE LAST AT 1	

PPSTEM EFFECT-OFFIANTEM BOLLS NOT STAFF-ED INSIGATION OF SOLO TAKES PECASANTLATION. PROBLEM CAUSES OF LODGE COMPECTS

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DIPPICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

MESCHEMALED. BATTSPACTORY ME-BAN OF COSPOSITE MADE.
COMECTION IN AME WAS INDIVINED. COMESTION IN AME WAS INDIVINED.
OPERATION. PROM RAE TO 245 SC(225): 2257AINER ENGINE AND VERNIER BOLO FUEL TANK PRESSURE & AND OPCILLATIONS. PRESE NEWE PRECEZACD OF RECREASES IN THE VERNIER LOK AND FUEL TANKS AND
ERATION- PRIOR TO THIS ANOMALY, THE PROPULSION SYSTEM MAD BEEN AFFECTED BY A PREVIOUS HYDRA
P.1607
FAILUME HODE-LEAR-EXTERMAL. A LEAR EVIDENTLY IN THE PROPULATON BYATEN OCCUMED AND FIRE UNA EVIDENT AT 18.4 MECOMDA VALCACED BY AN EXPLOSION AT 18.65 SECONDS. CAUSE ON SOURCE OF THE FIRE AND EXPLOSION IS UNKNOWN.
INDIRECT EFFECT ON BUSTAINER TURBOPUNP. THE EXPLOSION POSSIBLY CAUSED LOSS OF THE MELLUN P BUSTAINER LUBE OIL REBENVOIR. THIS INTURN CAUSED INFROPER LUBRICATION TO THE BUSTAINER PUN DOWN AT 93.5 BECOMDS.
IONICLE STABILITY. STABILITY OF THE VOHICLE WAS LOST MICH BOOSTER CUTOFF WAS INITIATED.
AD41-0813 /AA197/31-040-04-24 COMOON TE-PROVOR.
PERATE AT PRESCRIBBO TIME, GAS GENERATOR INITIATOR BENERATOR DID KOT ALLON FIRING OF INITIA Compatible neth Lanken Confide, BYDEN,
DEED MOT STAFT. O'NG HASHANDAN DID MOT PINE.

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	BIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	PULSION SYSTEM-AIRBOA	Ä				
#31676 #31676-@J6	TESTREPORT HUNGER PAILED COMPONENT HANG	DIP DATA BOUNCE PART MUNDER	WENTELE DATE OF	ALTE TIME OIF	:: ž	ALTE PR: VENDOR MANE.	
PROPULSTON-143-478 GENERAL	AC-61-0006/81-608-A8-01 THRUST CHAMBERS	CAPTIVE	010010	P-1 / 94C	28	VES ROCKETOVNE NO	i
FAILURE MODE-OUT OF SI INAL THRUST, RESPECTIVE	FAILURE MODE-OUT OF SPECIFICATION. THE B1, BE, AND BUSTAINEN THRUST LEVELS NERE 8.8, 4.5, AND 8.7 PERCENT SELON MON INAL THRUST, RESPECTIVELY. ALLOMANG THRUST BEYIATION 18 3 PERCENT.	ACS THAIGS LEVELS NO PERCENT.	E 0.0, 4.1	, A66 8.7	Ž	10H 96LOV NON	
STATEM CTTECT-CHEMATICM TOO LOM.	ON TOO LOM.						
WONTELE EFFECT-NOME.							
CORRECTIVE ACTION-LINELIDIEN.	istolie.	ı					
PROPULSION-MAS-A/B GDERAL	AE80-0338/P: -402-00-80 RELAY 86K, CIRCUITRY	72.64	\$00 \$0070£	11.7cm	1 2	YES BOCKETDYNE NO	2 2
FAILURE MODE-ERRATIC (TIME PROBLEM MAS CBSERY	FAILURE MODE-ERRATIC OPERATION INTERNITENT SMORT IN WIRING OF ENGINE RELAY BOX OR ASSOCIATED HARNESS. SIMILAR SMORT TIMS PROBLEM MAS CHSERVED DURINGPRICK VERNIER EDIGINE LEAR CHECK TEST.	HE OF ENGINE RELAY BO DRECK TEST.	K OR ASSOC	IATED HAR	3	SINILAR MOR	
SYSTEM EFFECT-EMANTIC OFFRATION INTENSITY NG OF THE VERSIEN EMESINE PROPELLANT TANKS.	COPERATION INTERHITTENT CAUSED ERRATIC CLOSURE OF RELAY THAT CONTROLS PRESSURIZATION AND VENTI-	IC CLOBURE OF RELAY 1	HAT CONTRO	LS PRESSU	72	TION AND WENTE	
VEHICLE EFFECT-INFROP	VENICLE EFFECT-INTROPER TRAJECTORY. REPEATED PRESSURIZATION AND VENTING OF THE VERNIER TANKS CAUSED DETERIORATION O F BOOSTER: SUSTAINER AND VERNIER EMEINE PERFORMANCE WITH CUTOFF AT A VELOCITY INSUFFICIENT TO MEAD! THE TARGET.	DH AND VENTING OF THE UTOPF AT A VELOCITY I	VERNIER T	ANKS CAUS	8 2	TERIORATION O	
CORRECTIVE ACTION-INC	CORRECTIVE ACTION-INCREASED INSTRUMENTATION ON LATER TESTS TO CHECK SIGNALS PROM PROGRAMMER.	B TO CHECK SIGNALS FO	OH PROGRAM	į			
PROPULSTON-1MS-A/8 BOOSTER	574-3-44-E5 Turbist Pue	7.1847	7117	PALCE-4 29.6	27 00	3	i
FAILURE MODE-FAIL DURING OPEN	ING OPERATION. RE CHANGER PRESSURE AND PAPE SPEED DECREASED & PAI AND ST RPW RESPECTIVELY. SAME	O PUP WILL DECREAS	4 14 B	5 te 6	3	ECTIVILY. SUB	
SYSTEM EFFECT-OPERATED	92 700 LBE.						
WAICLE GPTECT-100E.							
CORRECTIVE ACTION-OPEN	H-INVESTIGATION IS BEING PERFORMED TO BETERMINE ELACT FAILURE MODE.	DETERMINE ENACT PAI	LURE MOE.				
PROPULSTON-1861-4.70 8008 PER	\$74-3-66-67	P.15647	16.0 16.0 16.0 16.0 16.0 16.0 16.0 16.0	*	3 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3	 -
PAILURE MODE-OUT OF TO PROFILE, MICO DECUMEND O	OLERANCE. THE PU STSTEM HAS BEABLE TO CORRECT FOR A LOW RICH EMPOR ALTHOUGH ITS OPERATION HAS B MICHOGO EARLT AS THE RESISET OF FUEL BEPLETION. LEALAGE OF FUEL RICH DURNING OF THE BOOSTEM E HOLS.	DOBRECT FOR A LOW R. BEPLETION. LEALAGE	CON CARCON OR PUEL N	AL THOUGH ON BURNIN	28	PERATION MES THE BOOSTEN E	
trette trette-fulle na	K PRI BOLING.						
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	VENDOR NAME VENDOR PART ND			#E31370FLEH #3909CCH-18-01 00	WITH IT WAS RE	CTS ENCOUNTERED. HOSE REPLACED		FOLD. THE LEAK					ILLATION APTER				Prof 0119
	9 to	8		28	Ş	200	şe	į				Ş B	8				1
	317E PR1	TAKE T		ž.	13 300 11	E CINER I	PALC 2-4	BTER LOK				ABRESA-1 YES	PRESEUTE				
u	VEHICLE DATE DIF	VENE HET.		1160	AC 18 70	0-11. TE	7110	T THE 800				3030 060834	MC 191 M				
LBION BYBTEM-AIRBORN	DIF DATA BOURCE PART NUMBER	ISSION REQUIREDENTS		748	A ONE-MALF INCH CRA	HAS NOT CRACKED OR LD NOT BE PIN POINTE BY THE AIRTORCE.	CONFOST TE-FRE/DPL	EAKS WERE DETECTED A WALVE.				CONTOB TE-FTD/DIE	DULATOR DISPLATO E				
DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE	TEST/REPORT NUMBER PASLED COMPONENT NAME	WINICLE EFFECT-PREDATURE SUSTAINER EMBINE CUTOFF ALTWOUGH MISBION REAUIREMENTS NERE MET. Confective action-offer-investigation is being performed to defending if primary cause is leasable on fuel alon bush		A-10-04-1410	FAILUGE HODE-BTRUCTURAL, FIELD PERSONNEL REPORTED OBSERVING A CHE-HALF INCH CRACK IN THE HOSE LINER AFTER IT HAS RE WONTD PROK STOCK FOR INSTALLATION ON VEHICLE 960.	RE WAS NOT CONFIRMED. THE MOSE LINER WAS NOT CRACKED OR SPLIT. THE LINES DEFECTS ENCOUNTERED A MIX AND EXTRUSION ANOMOLY THAT COULD NOT BE PIM POINTED BY THE MANUFACTURER. MOSE REPLACED ESION CHANCE FOR THIS HOSE APPROVED BY THE AIRFORCE.	14-710-01-7116 VALWE-DIECK	POST DPL CHYOGOLIC LEAK CHECK THO LEAKS WINE DETECTED AT THE SOOSTER LOK MANIFOLD. THE LEAK HECK VALVE AND AT THE SCOSTIAP CHECK WALVE.	A. DWINDBEDIT.	ocour.	EALS FOR BOTH VALVES NEWS REPLACED.	A1 -480-01 - 103 RE44.A TOR -448	Pailung Hore-Comatic opchatich. The booate lok reperince rebulator displayed excessive persoung oscillation after Hesonization and vertive of overt takes.	Pera Vien.		DELITE IN APLAND.	
18 JUN 1868	H21646- 6 58 H31646	VENICLE EFFECT-PREDATURE	IN OF THE BOCATCA ENAINER.	MOTULSION-MS-A/B BOORTER	FAILUSE MOSE-STRUCTURAL.	CORPECTIVE ACTORN-PAILURE NA PROBABLY RESALTED PROBA A MIX . ROCKETDYNE NAS MAJOR DESIGN	8/7-578-9015104-909	FAILURE NODE-DURING THE POST B NEME AT THE FILL AND CHECK	STREET-LOW THEMAL ENVIRONMENT.	WENTELL EFFECT-TEST NESOSEMLE.	CONNECTIVE ACTION-THE BEALS	0.00 TER	PAILURE HORE-CREATIC OPCIATI	erente coper-comite organien.	WHICH OFFET-EDE.	COMERTINE ACTION-THE ACTION	

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DIFFICULTIES REVIEW-PROPULBION SYSTEM-AIRBORNE

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2727EN 848-3737EN	TESTARFART MUMBER PAILED COMPONENT MANE	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	817E TINE 01F	PR VEN	SITE PRI VENDOR MANE TINE DIF OTH VENDOR PART NO	
Propusion-Ms-A/B Booster	60c/84743-070/82-401-00-83 844 OKIBIZER LIGUID REGULATOR	FLIGHT	050 051870	B-2 ///IA	TES ROCKETBYNE NO 301311	KE TD7HE 11.1	040330
FAILURE MODE-OUT OF EXPECT MEAN DURING BOOSTER PMAIN, GRAINCE CHAME, A IMLFURCTI ERFORMANE, TO VARY METH THE	FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE BOOSTER EMBINE SYSTEM PARAMETERS INDICATED AN ABNORMAL PERFORMANCE INC EASE DURING BOOSTER PMASE, ROCKETOTNE STUDY BUMGESTS MALFUNCTION OF 64 OKTOIZER PRESSURE RECULATOR AS CAUSE OF POST RANNEE CHANGE, A MALFUNCTION OF THE RESULATOR WOULD IN EPTECT CONVERT THE ENGINE TO AN ORIFICED SYSTEM AND PERMIT P RECONMANCE TO VARY WITH THE CHANGES IN PROPELLANT HEAD INDUCED BY INCREASING ACCELERATION.	C BYSTEN PARAMETERS ANCTION OF 64 ONIDIZE TECT CONVERT THE EMGIL ACED BY INCREASING AC	INDICATED FRESSURE FOR TO AN OF	AN ABNOR	AL PERF	CRIMICE INC.	
BYBYEN EFFECT-OPERATION TOO BON INCREASING ACCELEBATION.	BYBECT-OFFICATION TOO NIGH. REGULATOR MALFUNCTION PRECLUDED CORRECTION OF PROFELLANT HEAD CHANGES RESULTING F ON INCREASING ACCESSMATION.	NECLUDED COMMECTION O	PROPELLA	93		RESULTING F	
WHICLE EFFECT-HOM. ME-I	WONICLE EPPECT-HOME. ME-DATHY NOVICLE HAS PROPERLY PLACED TO PROVIDE THE DESIRED INFACT.	TO PROVIDE THE DESIR	D INFACT.			٠	
CORRECTIVE ACTION-ROCKET	CORRECTIVE ACTION-ROCKETOVIC REGLESTING PURS PROH 860 TO CONTINUE INVESTIGATION	CONTINUE INVESTIGATION	Ŕ				
PROPULBI CH- NA5-A/B BOOS TER	CT-68-08-136 FUEL DUCT	FAR 7-23419-601	1740	2	OH 3/ 03 63 A	u	***
FAILURE HODE-EXTORNAL LEAN	MR. LEAKAGE REPORTED TO BE ONE DROP PER MINUTE WITH THE VEHICLE AT STAGE ONE PRESSURE.	JP PER HINUTE WITH TH	MOSCLE .	AT 87ACC	¥ 7	saunc.	···
CORRECTIVE ACTION-CONFINM	CORECTIVE ACTION-CONFINMED FAILURE. DUCT FAILED AT AN AREA THINNED BY DIMPLES IN BOTH SIDES OF THE PARENT MATERIAL DIMPLES WERE CAUSED BY WELDING. 60/C TO IMPROVE WELDING AND X-RAY INSPECTION TECHNIQUES.	EA THINNED BY DINPLES ND X-RAY INSPECTION	IN BOTH B	1068 OF	NE PARE	NT INTERIAL	
PROPULS FOR-NAS-A/B BOOS TER	60C/BKT03-067/L4-701-00-7113 B66 L02 BUTTY LINE	FLIGHT	7113 69 110 6	E-4/PALC YES	7£2 7£8		999004
PAILURE MODE-LEAR EXTERN	PAILURE MODE-LEAK EXTERMAL. LOE LEAKAGE AT POBBIBLY THE BGG LOE BUPPLY LINE PROM REGULATOR.	SE LOE BUPPLY LINE PR	N REGULAT	į.			
SYSTEM EFFECT-MONE. SYSTEM	en operation, as indicated by Plient Data, uns Normal. Los leakage too small to eppect prop R detectable in engine data.	INT DATA, INB NORME.	וס הנאנא	3 8 8	MLL TO (EPPECT PROP	
WENTCLE EFFECT-NONE, LOS (MT ALSO EVIDONCE NAS INDICA 30P BATA BESAM TO BROP FRO	VENICLE EFFECT-HORE, LOS LEMEAGS WAS REFLECTED IN LOW ENGINE COMPARTNENT TEMPERATURE DATA DURING COUNTDOM AND FLIG HT ALSO EVIDENCE WAS INSICATED IN A PROCESH HYDRALLIC INSTRUMENTATION DENNE LINE UNISOP) BESINNING AT 505 DEC WHEN MI BOP BATA BESAN TO DROP FROM BOTH PSIA TO 1800 PSIA.	INE COMPARTMENT TEMPE MENTATION MEMBE LINE	NATURE DAT	A DURING	COUNTDO	M AND PLIS MC WEN MI	
CORRECTIVE ACTION-UNDER I	CHARCTIVE ACTION-UNDER INVESTMANTION AT THIS THE.						
PROPRES Sh-166 5-4/9	PART STATE NOSE	UTP-411 00000-00	11019	PACTORE	75 5 6 19 19	TES FLEK METAL MOS MD C 10E48-3	
PAILING MORE-ONT OF YOLES	PAILINE HOSE-OUT OF TOLISANCE. BUSING THE FIGHING TEST THE PRACE REGUINED TO BETLECT THE HOSE PRESSURED TO 65 5 PSIS EXCESSES THE ALLOHASEE 458 PRIMES ACTUAL VALIGE 460 TO 568 POINDS.	THE PRICE REGULADS	TO BETTER	TAC MOR	3	11 200 10 01	

CONTRACTORINGS

348-3731EN	FEBT/REPORT MUNGER FAILED CONFORMT MANE	DIF DATA SOURCE PART HUNGER	MENICLE BITE DATE DIF TIME DIF	ME DIF OTH	PRI VENDOR NAME OTH VENDOR PART NO	
CORRECTIVE ACTION-REPEAT THE TABOUT THE UNIT CENTERLINE OF M 88-02208 TO CLARIFT THE RESA	CORRECTIVE ACTION-REPEAT THE TEST WITH A REDESIGNED PORCE MEASURING FIXTURE THAT WILL NOT PRODUCE A TORONE RESTRAIN T ABOUT THE UNIT CENTERLINE OF THE PREE EDG IN ANY OF THE REWINED & POSITIONS. DESIGN WILL REVISE BOOK APPERENTED BY SE-CAPOS TO CLARIFY THE REWINEDENTS AS DESCRIBED ABOVE.	MEASURING FIXTURE THE	NT VILL NOT 1	HOT PRODUCE A VICE REVISE BOX	A TORNUE MESTRACH BOOK BPECIFICATIO	***
PROPULSTON-1445-4/8 600 8008 TER 18	CC/22M8-GEE-GALDSS-7LA-7M2-01-71 COMPOSITE-FRE/DAT. 12 BOOSTOR LOE LIEUZE RESULATOR	's composite-france.	7112 80000	8-4/PALC TES		•
FAILURE MOSE-LEAR-EXPERIMEL. JALET TO THE BOOSTER LOR LE	FAILUPE HODE-LEAK-EXPERMAL. AT PULL SYSTEM PRESSURE A MINCH LEAR MAS DEFECTED DURING POST TEST INVESTIGATION AT THE IMLET TO THE GOOSTER LOR LIBERTO RESULATION.	R LEAR WAS DETECTED I	DURING POST	TO INCO	SEATION AT THE	
STATEM EFFECT-MOME.						
WONCLE EFFECT-HOLE.						
CORRECTIVE ACTION-THE LEAK	E LEAR WAS REPAIRED.					
PROPULSION-MS-A/B GO	BOG LOR MOTROICE ACTULATOR	7181	71.03 8003.8 79	ST STATE	E-S/PALC YES ROCKETOYNE 79 NO	•
FAILURE MODE-FAIL TO OPERATI	OPERATE AT PRESCRIBED TIPE- BITCAING YEAT PORT CHECK VALVE	MAT FORT OWEGE VALN				
STSTEM EFFECT-NONE. MEMLATI PRESSURE DECNEASE.	REGULATOR PRESSURE DROPPED ABRUPLY 10 PST RATHER THAN GRADUALLY DECREASING DUE TO ATHOSPHERIC) PSI RATHER THAN COLA	DUALLY DECRE	SIME DUE	O ATHORNEASC	
WENTCLE EFFECT-NOICE.						
CORRECTIVE ACTION-NOWE, THE	CORRECTIVE ACTION-NOME, THIS ANOMALY IS NOT CONSIDERED TO BE A PROSLEM BY EITHER ROCKETDYNE OR	DE A PROBLEM BY EITH	ER ROCKETDYN	.5/3 8		
PROPULS JOH-MAS-A/B GQ BOOS TER 94	49/CZEM85-008-0A1040-/L3-7HO-03-71 COMPOST TE-P10/DFL 04 0-14/F, 81 16411TR PUEL VALVE 27-02171-006	1 COMPOST TE-PROVOPE. E7-CE1 71-COM	7104 E-1	E-3/PALC YES		
FAILURE MODE-LEAR-EXTERNAL.	FAILURE HODE-LEAR-ENTERHAL. LEAKS NEME FOUND AT THE BY JOHITER FUEL VALVE DURING THE FUEL LEAR CHECK.	HTER PUEL VALVE DURI	A THE PUBL !	EAR CHECK.		
BYSTEM EFFECT-MONE.						
WENTCLE EFFECT-NOIG.						
CONECTIVE ACTION-TIENTENED B-MUT.	B-6UT.					
PODULS108-845-8/8 600	40C/BRF86-004/LS-701-00-7104	F.1607	7106 E-3 6501£3 D	ž 9		
FAILURE MODE-EXTERNAL LEAK. OHATS CONSIDENCE AND ST BOOM L VALWES, BOOMTER SAS SENERAL	L LEAK, LOGS OF CONTROLS BYSTEN MELIUM AS A RESULT OF LEAKAGE AT UNKNOWN POINT, POSSIBLE LEAK P 1) Googter Control Refulator Manual Bleed Valve 2) Pressure lines to 81 and 86 main lok and fue Generator, and bodster lok reperênce Resulator.	I AS A RESULT OF LEAK, LED VALVE ES PRESSUR REGULATOR.	16E AT UNKNOS E LINES TO BE	A POINT.	OSSIBLE LEAR P	

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CONVAIR DIVIBION

DIPFICUATIZS REVIEW-PROPULSION SYSTEM-AIRSONNE

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*********** 1000 740100 ğ BYBTEN EFFECT-MENE, ALTHOUGH CONTNO. PRESSURE DECAY RATE WAS EXCESSIVE DURING BOOSTEN PHASE THERE WAS ADECUATE PRESSURE TO PRESSURE TO PRESSURE PRE TES FLEX HETAL HOS FAILURE HODE-DUT OF SPECIFICATION, PRAINS THE INITIAL PLEX PORCE NEST THE PORCE REQUIRED TO DEFLECT THE MOSE PRESSURED TO NEST PROPERTY TO NEST THE TO SEE PROPERTY OF THE NOSE PRESSURED TO NEST THE SEE THE THE TOWNS. CORRECTIVE ACTION-MOME, THE ACTUAL LOADS REASURED MENE RE-EVALUATED BY ROCKETDYNE AND CONCURRED TO THE SHEAR LOAD A MAILE COAD EDS US, MONEDIT 2500 IN. US. ALSO TO THE NEW TES FLEX HETAL HOS PAILUME WOOE-OUT OF SMECIFICATION, DURING THE INITIAL PLEX FORCE TEST, THE FORCE REGUINED TO DEFLICT THE WORE PRESS. WRIZED TO 630 PRIS EXCEDED THE SO FOUNDS. WENTELE SITE PRI VENDOR MANE DATE DIF TIME DIF OTH VENDOR PART NO COMMECTIVE ACTION-MOME, THE ACTUAL LOADS WEARINGD WERE RE-EVALUATED BY ROCRETBYNE AND FOUND TO BE ACCEPTABLE, APECE FICATION 80-DREDGE WILL BE REVISED TO REFLECT THE MISHER ALLOMABLE LOADS. CHEMICIAIS ACTION CHESTING PRESENTES AND PROPERTIES AFTER ACAS CHESCA CONTINUED ADCOUNTS. A STEP TO MAILY THAT AS BAREN 18 CLOSED WAS AFTER TO THE PROCEDURES. CORRECTIVE ACTION-ALL HORES HAMIFACTURED IDENTICALLY TO THE PAILED UNIT TO BE RETURNED TO THE VEHICLE AND REMORKED FAILUME MODE-OUT OF SPECIFICATION. DURING THE BURST TEST THE UNIT REPTUNED AT 1900 PSIS. RES. IS 1965 PSIG. MIM. TES PLEX METAL 10215-16 g PACTORY PACTORY FACTORY **1101 \$**5010**2** DIF DATA SOURCE PART HUNDER UTP-QUAL/FPT UTP-GUAL/PPT 1-60220-4 STATEM EFFECT-MOME, MOME DURET ABONE OPERATING PRESSURE TEST/REPORT MINGER FAILED COMPORENT NAME PUEL START DIER APST. COASPEC FUEL START HOSE ASSY. COL START HOME ABBY. MOSE DESIGNATION OF 69-CRE05-5. BING A STRONGER WINEBRAID. WHICH EPPETY-MOR. MENICIE EFFECT-NOME N31818-818 PROPERTY AND THE AMERICAN PROPULSION-MS-A/S PROPULSION-MAS-A/B Prome 10 to 10

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CONVAIR DIVISION

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9901 W7 91	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSCANE	LEION SYSTEM-AIRBOR	¥				
8187EN 81 6 -8787EN	TESTAREPORT MUSER PAILED COMPORENT MANE	DIF DATA BOUNCE PART HUNDER	VENICLE DATE DIF	BITE TIME DIF	PRI VEN	VENDOR HANG VENDOR PART ND	
PROPUL 81 DK- 144 S- A.78 BODG 1 CR	60C/120464-042-DA1014-/L4-7MO-02-71 COMPOSITE-FRD/OFL 09 896 FLEH HOME, 8-MUT	COMPOST TE-PRD/DPL	7108 641187	2-4/PALC VES	5 Q		•
PAILURE MODE-LEAR-ENTE	PAILURE MOC-LEAR-EXTENDAL. BEALL LEAR WAS POUND AT THE PLEH MOSE CONSECTION TO THE BODSTER 1 1841TION PUEL	H MOSE CONSECTION T	0 THE BOOM	FER 1 16	11106	UEL VALVE.	
aratte tiftet-nog.							
WONDLE OFFECT-HOM.							
CORRECTIVE ACTION-THE B-MUT HAS RETORAGED.	B-HUT IMS RETORBUED.						
PRCPUL310N-NA3-A/B BOOSTER	A3-4HO-01-E47 B1 FUEL PUP CUTLET PLANKE, BEAL	COUNTDOING	£470	A3.NTA	VEB ROCARTOVNE NO	K.E. TDV NE.	7
FAILURE MODE-LEAK. EXTI	FAILURE MODE-LEAK. EXTERNAL. LEAKAGE WAS MOTED AT THE BY PUBL PUMP CUTLET PLANSE DURING A LEAK CHECK.	B. PLUP CUTLET PLAK	at our las	A LEAK O	ECA.		
STATEN CFFECT-100E.							
VEHICLE EFFECT-COUNTDONN	AN ABORTOD AND RESONDINEDS.						
CORRECTIVE ACTION-S1 PUE.	US, PUMP OUTLET PLANCE BEALB NENC POIND FAILTY AND REPLACED.	NO FAULTY AND REPLA	ė				-
PROPULSION-IMS-A/B BOOSTER	CDA/BRES4-010/LB-401-00-294 LOK RESULATOR	PLIGHT	2940 640311	2-3/PALC YES		ROCKETDVIE	1
FAILURE MODE-OUT OF EXPEC	FAILURE MODE-OUT OF EXPECTED VALUE. THE USUAL TRANSIDNT IN BOOSTER LOK REGULATOR RETERENCE PRESSURE BATA DID MOT OC LIK UMEN THE ENGINE TARKS WENE PRESSURITED. NO EXPLANATION IS AVAILABLE.	BOOSTER LOK REGULAT * AVAILABLE.	S ROTOD	ict meun	ME DATA	010 MOT OC	
SYSTEM CPTCCT-MOME.							
WOHELE EFFECT-HOME.							
CORRECTIVE ACTION-NO O	CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.				!		
Profut 5108-1445-1478 8008 TER	GD463-1237/PG-LO-61-OAC2 VENT PORT OMECK VALVE-LOK REFERENC E REGULATOR	P.1947	1840 (2117)	304/ETA 87	27. 35.	ROCKE TO VICE	•
FAILURE MODE-OUT OF EM	FAILURE MODE-OUT OF EMPECTED TEST VALUE. STICKING WENT PORT CHECK VALVE ON THE RESULATOR RESULTED IN A 10 PSI DECRE AME IN BOOSTER LOK REFERENCE RESULATOR PERFORMANCE.	CHECK VALVE ON THE	MENALA TO	M 8 W. TE	. 4 #1	0 PSI OCCAC	
OVETER EFFECT-OPERATES	STRICH EFFECT-OPERATION TOO LOW-DOOMINE DISING PERFORMACE DROPPED APPROXIMACELY I PERCENT AT ST SECONDS.	DROPPED APPROXIMA	LY I PERC	THE AT BY			
WOITELE EPPET-HOME.							
CORRECTIVE ACTION-UNKNOWN	76.						1
						PA6C 0113	
							1

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DIPPICUATIES REVIEW-PROPULSION STREEM-AIRBORNE

11 101 1300

3737EK 848-8737EH	TEST/REPORT MUSER PAILES COMPOSENT MANE	DIF DATA BOURCE PART NUMBER	VEHICLE BITE DATE DATE DATE DATE DATE DATE DATE DA	11 DE 11	1 4 V	WE COR MANE WIND 1 PART NO	
PROPULSION-MS-A/B SCORTER	66/483-1237/9644-16-01-6488 THRUBT CHEBER	countrous	1200	364/ETA -18340	22		3
FAILURE HODE-OUT OF END	EPPECTED VALVE. BODGSTER EMBINES INERT PLUID FILL VAS NOT COPPLETED BY PRESCRIBED TINE. BCY DALL	AT PLUID FILL WAS NOT O	SPLETE B	r PREBCRI	8	K. 60 DK.	
SYSTEM EFFECT-MOME.							
WOHICLE EFFECT-COUNTDOM	WENTELE EFFECT-COUNTDOM BELANDS. 19 HINDTE HOLD.						
CORRECTIVE ACTION-HOLD	TO COMPLETE BOOSTER EMBRES INERT PLUIS PELL AND CLEAR THRUST SECTION.	T PEUTO PTLL AND CLEAN	THRUBT BEC	7 I OH.			
PROPULSTON-MS-A.A.	**************************************	PLIMIT	1980	A-1.ATR	2 0		25
FAILURE HODE-AN OPEN CHI	FAILURE MOSS-AN OPEN CIRCUIT EXISTED IN THE BOOSTER IBHITION DÉPECTION SYSTEM RESULTING IN ENGINE SYSTEM SANTBOLM W MEN THE IGHITION STARE SUPPRET WAS NOT CHIPLETED.	ITION DEPECTION SYSTEM	RESULTING	IN CHEIM	arere:	N BHUTDOM N	
SYSTEM CPECT-OFERATION STOPS PREMIUMELY.	A BTOPS PREMATURELT.						
VEHICLE EFFECT-PREMINE	WHICH DIECT-MEMINE MONAJION STATES CUIDT.						
CORECTIVE ACTION-MELICION							
PROPULSION-14 5-4/8 BODS TER	AASE-000E/FE-4CBH-07-104/C-1 RE FIEL OUTLET DICT	COSTOS I TE-PROVIDE.	1040 01152	344 /CTR	ភូមិ		1
PAILURE MODE-LEAR-EXTER	FAILUME MODE-LEAK-EXTERMAL. A SMALL LEAK MAS DISCOMENTED IN THE BE PURL CUTLET BUCT AFTER TAMKING.	IN THE BE PUTL CUTLET	DUCT AFTER	TAMETOR			
BYBYDA EFFECT-NOIC.							
WONICLE EFFECT-NOME.							
CORRECTIVE ACTION-NEPAIR.							
PROPALSION-NAS-A/B BOOKITE	ETR-019/14-314-A2-8E POPPET-645 GENERATOR LON B1	CAPTIVE	1-4E 60060E	1-4/2018	YES 30	VES ROCKETOVIC NO	05066
FAILURE MODE-INIERNAL LI	PAILURE HODE-INIERNAL LEAM. HOT GAS PROW SPIN CHARGE LEAKED PAST FOFFET AT DISINE START.	ALED PAST POPPET AT DIS	INE START.				· · · · · · · · · · · · · · · · · · ·
SYSTEM CPFECT-OPERATION	STREET CPTECT-OPERATION TOO MIGH. ADMORMAL 66 INJECTION PRESSURE RISE.	PRESSURE NISE.					
WENTELE EFFECT-HOME.							
CORRECTIVE ACTION-THE BAI	CORRECTIVE ACTION-THE 648 GENERATOR WAS REDIONED AND RETURNED TO THE WENDOR FOR REPAIR AND AND RE-ACCEPTANCE TESTING PRICE TO RE-INSTALLATION.	WHICH TO THE VEHICLE FOR	REPAIR AN	D AND RE-	ACCEPT	AMCE TESTING	
							

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GENERAL DYNAMICS

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DIFFICUATIES REVIEW-PROPULSION SYSTEM-AIRBORNE

87.576 646-675	TEST/REFERT MAGEN FAILED COMPORENT MANE	DIP DATA BOUNCE PART MASER	WENICLE BATE DIF	110E DIF	WENICLE BITE PRI WENDON MANE BATE DIP TIME DIP OTH WENDON PART NO	
PROPULATOR-1443-478 BOOM TO:	ETR-019/14-514-AE-BE LUBE OIL HAMIPOLD & MUT	CAPTIVE	30900	1-4/CD48 7E8	74. 80	3
FAILURE HEDE-LEAK-PORT	FAILURE MEDE-LEAR-PORT TEST IMPRECTION METVEALED A SMALL LEAR AT A 9 MUT IN THE SEMSE LINE.	K AT A D MUT IN THE	17 JOHOS :	ý		
STATES EPTECT-NOIC.	<u>.</u>					
WHICH EFFET-101E.	7					
COMMECTIVE ACTION-NOIC.	ig w					
8/4-5M-H21	CTR-015/14-42-46 4ab GDGAATOR-ORIFICE	CAPTIVE	20000	1-4/00an 100	1-4/Ebra YEA ROCKETOWE IDS NO	•
FAILURE MODE-OUT OF TOLL	FAILURE MODE-OUT OF TOLERANCE-BI SAS REPUBLATOR WAS IMPROPERLY ORIFICED.	RY ORIFICED.				
SYSTEM EFFECT-OFERATION	SYSTEM EFFECT-OFFIZATION TOO LON-BE BIGING PENFORMING MAS & PCT LON-	PCT LOA.				
WAIGLE EFFECT-NOIC.						
CORRECTIVE ACTION-LINUXIDAL CAS	IN. 643 GDETATOR WELL DE RE-CRIPICED.	Ġ.	į			
PROPILES TON-1445-A/B BOOK TEX	ETR-017/14-512-11-8E 648 EDEJATOR LOR ORECK VALVE	CAPTIVE	600615	1-4/f0'A YES f03 60 T PLUS 0	2 <u>7</u> .	94195
FAILURE HODE-PREDATURE OPERATI	OPERATION-LOX OPEN WLVE CRACKED PREMATURELY.	IĐA TURELY.		ż		
SYSTEM EFFECT-NOME.						
VENICLE EFFECT-NOME.						
CORRECTIVE ACTION-NOME.						
PROPULSI CH-1449-14/8 BOOSTER	ETR-016/14-511-1K-8E 8E 645 GENEDATOR LON CHECK WALVE	CAPTIVE	600603	8 9	1Ç\$	107760
PAILURE MODE-PRENATURE OPERATI	OPPLATION-LOR CHECK WLWE CRACKED PREDATURELY.	DA TURELY.				
6781EN EVFECT-NOIC.						
WONTELL EPPECT-HOME.						
COMPCTIVE ACTION-MELLONE.	i					·
						
					6810 3044	7-1

GENERAL BYNAMICS CONVAIR BIVISION

18 JUN 1986

DIFFICULTED REVIEW-PROPULATION AVAILABING ON

	•					60374					99394					990374					1
WENICLE BITE PRI WENDOR MANE DATE DIF TIME DIF OTH WENDOR PART NO	- ACCAETDYNE					TES ROCAETDYNE					ROCKETDYNE		RATURE.	74£ 6.4. CORUS		7E8 MA.A					
114E D1F OF	1-4/EDM TES ACCRETOYNE RDS NO T PLUS 0					1-4/TD46 YES					1-4/EDIM YES ROCKETDYNE ADS	ONIFICED.	BUSTION TOME	DELNER WEN		PALCE-4 7E3					
	£0000					500e					\$00500	: HFROFERY	1 IN HIGH COM	WIED BY AN Q		7117	Š				
DIF DATA BOUNCE PART NUMBER	CAPTIVE	IDM TURELY.				CAPTUE	TEST INSPECTION.				CAPT 2 VE	GEFRATORS NERE	I RICH, REBULTING	IDIATURELY TERNIN		COMOST TE-PRO/DPL	18178 12 751 87				
TEAT/AEPOAT MUNBER FALLED COMPONENT MANE	ETR-010/14-511-1K-BE 61 440 454ERATOR LON CHECK VALVE	FAILURE WOC-PREMIURE OPERATION-LON CHECK MLVE CRACIED PREMIUNELY.			į	ETR-016/14-911-1K-8E TUBOPUAP ACCESSARY DRIVE BAAFT-8E AL	FAILURE HODE-LEAK-LEAK WAS DISCONDED AT BEAL DURING POST TEST INSPECTION.			X .	ETR-011/14-507-1H-8E 8008TER 6A8 6D6RATOR ORIFICE	FAILURE MOCE-OUT OF TOLERANCE-FUEL BIDE OF BOTH BOOSTER GAS GENFRATORS NERE IMPROFERLY CRIFICED.	I TOO MIGH-GAS EDICRATOR OPERATED LOK RICH, REBULTING IN HICH CONBUSTION TEMPERATURE.	VENICLE EFFECT-PREDATURE PROPULSION CUTOFF- THE TEST MAS PREDATURELY IERNINATED BY AN CASERVER MICH THE 6.6. COMBUS ION TEMPERATURE EXCEEDED REDLINE AT 7 PLUS 23.30 BECS.	į	17-110-01-11(7 12-110-01-11(7	PAILURE MOCE-BUBTAINER LOK REBULATOR REPERENCE PRESBURE EINIBITED 12 PBI STEPS.	POATION.	ocour.	RESULATOR IND REPLACED.	
1717EN 848-171EN	PROPULS 1 ON- NA 5-A / B 6008 TER	PAILURE MODE-PRESMITURE	BYBYEN EFFECT-MOM.	WAICLE EFFECT-MOME.	CORRECTIVE ACTION-MAINDRA.	MOPUL 87 ON-NA 9-A 78 8008 TER	FAILURE HODE-LEAK-LEAK	SYSTEM EFFECT-HOME.	VENICLE EFFECT-HOME.	CORRECTIVE ACTION-LAKNOSAL	PROPULSTON-MS-A/B BOOGTER	FAILURE MODE-OUT OF TOLI	SYSTEM EFFECT-OPERATION TOO HI	VENICLE EFFECT-PREDATURE PROPU TION TEMPERATURE ENCEDED REDLI	CORRECTIVE ACTION-UNKNOWN.	PROPULS 108-1445-478 BUSTA 11628	PATLINE MODE-BUSTAINER L	SYSTEM EFFECT-CARATIC OFFRATION.	WHICH CITECT-TEST RESOURCE	CONNECTIVE ACTION- THE RESULATOR WAS REPLACED.	

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SENERAL BYNAMICS CONVAIR BIVISION

11 Jun 1946

DIFFICULTIES REVIEW-PROPULATOR AVAILM-AIDBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER DIF DATA SOURCE V	DIF DATA SOURCE	ENICLE ATE BIP	11 TE 01 F	PRI VENDOR HANG OTH VENDOR PART NO	
→ F ≥	PE-702-00-5001	COUNTDOM	3001	31-15	1E8 MAA	07 200
FAILURE HOOK-BUBTAINER CHAINE WARDS.	HE PAILED TO BOOTSTRAP BECAUSE THE BUSTAINER LON BOOTSTRAP CHECK VALVE WAS INSTALLED SAC	G BUSTAINER LOK BO	STATRAP CHE	CK VALVE	WE INTALLED SAC	····
8 x	BYSTEM EFFECT-OFERATION DOES NOT START THE SUSTAINER EMBINE FAILED TO START. WEHICLE EFFECT-THE LAUNCH WAS ABORTED.	FAILED TO START.				
Ž	CORRECTIVE ACTION-CHECKOUT PROCEDURES NEME REVISED TO PROVIDE HORE CONFLETE CHECKS OF CHECKVALVE INSTALLATIONS.	E HOME COMPLETE CH	ECKS OF CHE	CAVALYE	INSTALLATIONS.	
1	574-3- 66 -34 Valve-Propellant	Piet	3040 A	ABRESA-1 NO NO	OH OH	807064
W.	FAILURE MODE-THE HS VALVE MONDIENT WAS BLUSTEM AND FAILED TO CLOSE AT BECO. FREEZING OF THE CLOSING HYDRAULIC CONTR L. LINE IS SUSPECT.	CLOSE AT RECO. FR	TE21NG OF 1	1 6 010	NG HYDRAULIC CONTR	
_	SYSTEM EFFECT-OFERATION TOO LONG MESIDUAL THRUST EXISTED FOR APPROXIMATELY 30 SECONDS.	APPROXIMATELY SO	Ecoros.			
- E	VENICLE EFFECT-RY NAS BUNTED EIGHT TINES AND RY OVERBHIOT MAS APPROXIMATELY TO HILES.	S APPROXIMATELY TO	MILES.		٠	
_ ~ ~	CORECTIVE ACTION-NA IS MAKING A STUDY OF THE LOK DOME AREA BEALS. IT HAS BEEN RECOMENDED THAT CRITICAL LINES DE INSULATED PER ROCKETOTHE APIN 66 AS DOME ON BLY VEHICLES.	8EALS. 37 MAS BEET	N RECOMEND	TANT CO	CRITICAL LINGS DC	
	974- 3-86 -54	7.1617	3040	ON	TES NAA NO	*070**
	FAILURE MODE-A BUBTAINER LOH LEAR WAS CVIDDICED BY PREEZING OF THE MS VALVE MYDRAULIC CLOSING CONTROL LING.	OF THE HS VALVE HT	DRAULIC CLO	3 114 CG	TROL LINE.	
۲	STSTEM EFFECT-OPERATION TOO LONS. MS VALVE DID NOT CLOSE AT SECO RESALTING IN APPROXIMATELY SO SECONDS RESIDUAL THA ST.	SECO RESALTING IN	APPROXIMATE	34 30 M	COMOS RESIDUAL THE	
Į	VENICLE EFFECT-AV HAS BLAFED EISHT TIMES AND AV OVERBYGOT WAS AFFICKINATELY TO KILES.	A APPROXIMATELY TO	MILES.			
_	CORRECTIVE ACTION-BAA 18 MAKING A STUDY OF THE LOK DONE AREA SEALS.	SCALS.				
-	67-9- 6 -10	P. 100T	7116	PALCE-4	TES NAA NO	
¥ 3	FAILURE MODE-PROPELLART RESIDUAL WAS 856 POLNDS LESS THAN EXPECTED AT SECO LEADING TO THE HYPOTHESIS THAT SUSTAINES CHOINE PERFORMANCE NAS ASMOTHAL.	PECTED AT MECO LEM	at of #10	MVPOTIE	OIO THAT OUNTAINER	
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

878TEN 846-878TEN	TEST/REPORT NUMBER FAILED COMPORENT NAME	DIF DATA BOURCE PART HANDER	VEHICLE DATE OIF	81TE TINE DIF	VEHICLE SITE PRI VENDOR MANE DATE OF	9
CORRECTIVE ACTION-INVERTIO	HEATION OF BUSTAINER ENGINE PERFORMANCE IS IN PROGRESS.	ANCE IS IN PROGRESS.				010040
PROPULSTON-MS-A/B SUSTAINER	P4 - 78W-01-530g PULP- TURBO	COMPOSE TE-PRO/DPL	9302	CTR14	TES NAA HO	***
PAILURE MODE-DURING PORT	I DPL INDPECTION EVIDENCE WAS POUND OF A LOX LEAK PAST THE SUSTAINER PUNP CAVITY SEAL.	OF A LOK LEAK PAST	NE BUSTA!	2 5	CAVITY BEAL.	
SYSTEM EPTECT-LOW THERMAL	AL ENVIRONMENT.					
WAICL EFFCT-TEST RESOLDINGS.	SECULO.					 _
CORRECTIVE ACTION-THE PUR	APP WAS REPOYED- BEAL REPLACED AND PLUP RETINSTALLED.	UM REINSTALLED.				~
PROPULSICN-MAS-A/B BASTATINER	EDC/BR/98-007	P.1601	7119	PALCE-4	YEB MAA WO	227040
FAILURE MODE-EXTERNAL LE	FAILUME HODE-EXTERNAL LEAK. A BUBTAINER LOM LEAK HAS EVIDENCED BY PREEZING OF MEABUREDENT P330P SENSE LINE.	CED BY PREEZING OF I	CANADON	1 7305 1	DINE LINE.	
SYSTEM EFFECT-LON TOPICIATURE DIVINOSIDIT.	LATURE EWINOBEM.					
WENTOUE EFFECT-NOME.						
CORRECTIVE ACTION-OFFINA	WA IS ATTEMPTING TO ISOLATE POSSIBLE SUSTAINER THRUST CHANGER LON DONE BLACM LEARAGE AREAS.	E BUSTAINER THRUST (07 43 9 HVC	4 900 x	DON LEARAGE AR	<u>.</u>
PROPULSTON-NAS-A/B SUSTATNER	45/CZ2N43-031-0A1042-7L4-7N0-01-71 COMPOSITE-FN9/DFL 13 HEAD SUFFRESSION VALVE	COMPOSE TE-PRO/DPL	7113 691108	B-armale	R-4/PALC YES ROCKETDYNE NO	•
FAILURE MODE-EXTERNAL LEA	LAR. FOST DPL IMPRECTION INDICATED H.S. VALVE GATE TAKAGE.	. S. VALVE GATE CAK	ž.			
SYSTEM EFFECT-NOIC.						
WOULDE ETTECT-HOME.						
CORRECTIVE ACTION-VALVE WAS REPLACED.	WE REPLACED.					_
PROPULBION-NAS-A/B SUSTAINER	60C/6KP85-065/P4-701-00-5501	7.ET	9301	14/CTR 36	7C8 100	
FAILURE MODE-OUT OF EMPECTED TEST VALUE.LONG. C. PLUP SISCOLANGE PRESSURE: PROM 36 TO 76 SET 1 dats to 40 STANTIATES LOT LEAK. PRIMARY SUBPECT WE AREA. AND 31 MEAD SUPPRESSION VALUE AREA.	FAILURE MODE-OUT OF EIPECTED TEST VALUE.LOK LEAK IN THRUST BECTION INDICATED BY PRESSUPEDROP ON PSIOP (SUSTAINER FU L. PURF BISCUARE FRESSURE) FROM 39 TO 70 SECONDS INDICATIVE OF A FROSEN SENSE LINE. POTI (EMBINE COMPARIMENT ANSIEN GA) BUBSTANTIATES LOI LEAK, PRIMARY BUBPECT AREAS ARE, 1) BUBTAINER LOK DONE, 2) BUCTAINER LOX BOOTSTAAP CHECK VAL E AMEA, AMD 3) READ SUPPRESSION VALVE AREA.	MECTION INDICATED BY OF A PROSEN BENSE I MATAINER LOK BONE,	. PREASURE . J.M P078 . B TABL	000 ON (CM) ME (CM) ME	DOP (BUSTAINE) COMPANDENT AN COTSTAAP CHECK	255
6181EN CPPECT-NOM. 1.EAM	: OF SUCH A SPALL MASHITURE THAT PROPULSION SYSTEM OPERATION MAS NOT AFTECTED.	PULBION SYSTEM OPERI	71GE M.	NOT AFFEC	Ş	

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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

			22				21020						
EMICLE BITE PRI	DATE DIP THE DIP OTH VENDOR PART NO		7114 FACTORY NO 650722 AC	FAILURE HORE-OUT OF TOLERANCE- PROPELLANT UTILIZATION VALVE BERNO VOLTAGE FOR STATION 4 WAS RECORDED FROM DIGITAL V R.Theter as 3:378 volts when 3:7 volts has expected (3:439 volts minimum allowed). Teledetry data (usisy seavo peeds cr.) displated an acceptable 3:48 volts.		DISCREPANCY COULD NOT BE DUPLICATED. HOMEVER DIBCREPANCY WAS ATTRIBUTED TO INCOMPLETE VOLTA	650423 PACTORY YES PLEXIBLE NETAL 6600 NO MOSE 10101-1	FAILURE MODE-OUT OF TOLEDANCE. DURING INITIAL ACCEPTANCE TEST THE DISPLACIDADIT PORCE EXCEDED THE SO LS MAX. ACTUAL FORCES WERE 50.4 TO 87.1 LBS.	THE EXTREME OUT OF TOLERANCE PORCES HEASURED NEME IN PART DUE TO THE TEST FIXTURE WHICH DID E HOSE END. REDESIGN THE TEST FIXTURE AND REPEAT THE 1.A.T. PLEXING TEST.	650409 FACTORY WES PLEXIBLE METAL 6982 ND HOSE 10181-1	FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL EXAMINATION OF PRODUCT IT WAS FOUND THAT THE RADIOUS OF THE PLEXIBLE ECTION OF THE UNIT WAS APPROXIMATELY 30 INCHES. RES. IS 7.9 INCHES. REF. TASK HISTORY LOS NO. 531-1-005. 3/N DOE.	THE TYPE OF BELLOAD AND SEATO USED IN THE PLEXIBLE SECTION IS DIFFICULT TO PREFORM, THEREFO CONDITION WOLLD NEED NO CORRECTIVE ACTION PROFILED THE UNIT PASSES THE REMAINDER OF THE TEST	
ENTREMENT WINER OF DIF DATA BOUNCE IN	PART HABER	;	-014 COMPOSITE-PACTORY	arue aervo voltage por 139 volts minimum allok		lated. Hoævea dibenera	UTP-PAT 66-0E201-1	I TEST THE DISPLACEDED	MCES MEASURED WERE IN THIUME AND REPEAT THE	UTP-PAT 88-02201-1	ION OF PRODUCT IT WAS P 1 7.9 INCHES. REF. TABL	HED IN THE PLEXIBLE ME.	
TESTAGEORY MUSER	FAILED CONFORENT NAME		GO/CAMES-001-40/FC-CO-02-0071-014 COMPOSITE-FACTORY PROFELLANT UTILIZATION VALVE	IANCE- PROPELLANT UTILIZATION ' PEN 3.7 VOLTS NAS EXPECTED (3./ RLE 3.95 VOLTS.		DISCREPANCY COLLD NOT BE DUPLICED WOLTHERED.	OBASSES.S LON BEART TANK HOSE ABST.	RANCE, DURING INITIAL ACCEPTAN LBB.	COMECTIVE ACTION-NOWE. THE EXTREME OUT OF TOLENANCE PORCES MEASURED WENE IN PART BUE TO THE TEST NOT ALLOW ROTATION OF THE HOSE END. REDESIGN THE TEST PIXINGE AND REPEAT THE 1.A.T. PLENING TEST.	684315.1 LOK 87ART TAM HOSE ASST	TANCE, DURING INITIAL EXANIMATI PPROKIMITELY 30 INCHES, PER, II	NE TYPE OF BELLOMS AND SKAID V MEDITION WOULD NEED NO CORRECT	
818161	546-573TEN		PROPULSION-MS-A/B BUBTAINER	FAILURE HORE-OUT OF TOLERANCE- PROPELLA! QLIMETER AS 3.378 VOLTS INEN 3.7 VOLTS IN ACK) DISPLATED AN ACCEPTABLE 3.98 VOLTS.	WOHELE EFFECT-MOME.	CORRECTIVE ACTION-HOLE. D	PROPULSTOP-WAS-A/B BUSTATNER	FAILURE MODE-OUT OF TOLETANCE FORCES MERE 50.4 TO 87.1 LB8.	CORRECTIVE ACTION-NOIS. 1	PROPULS 1 CN- MA 5- A/B BUGTA 1 NEA	FAILURE NODE-OUT OF TOLES SECTION OF THE UNIT MAS AN	CORRECTIVE ACTION-HOME. THE THE OUT OF TOLERANCE CO.	

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8181EH 818-8181EH	TESTARFORT MUBER FAILED CONFORMT MANE	DIF DATA SOURCE PART WINDER	VEHICLE BITE PRI	81 TE	PRI VENDOR MANE OTH VENDOR PART NO	
MASION-MAS-A/B BK AINER ILUNE WODE-LEAK-EKTERMAL- ENFORARY FREEZING OF THE BTEN EFFECT-OEPLETION OF	MESS-DED/ADI-401-00-297 FLIGHT 2970 A-5/4TR YES MENSE LINE LON INFINCTING ON THE SUSTAINER FUEL FUND DISCHARGE PRESSURE TRANSDUCER SENSE LINE CAUSE I FUEL IN THE LINE. EXACT SOURCE OF LEAR IS UNKNOWN. T LIQUID SUPPLY. LEAR SAS OF SUCH A SHALL MACHITUDE THAT ENGINE PERFORMANCE MAS NOT AFFECT	PLIGHT UEL PUMP DISCHARGE LEAK IS UMENDING. SHALL MANITUDE TH	2970 SSOSES PRESSURE AT ENGINE	A-1/VTR B4 TRANSDUCE PERFORMA	ESTD A-S/VTR VES ESSES SA NO PRESSURE TRANSDUCER SENSE LINE CAUSE NAT EMEINE PERFORMANCE NAS NOT AFFECT	
WATCLE ETTECT-MOME. CORRECTIVE ACTION-NO CORRECTIVE ACTION 18 PLANNED CONCERNING INSTRUMENTATION SENSE LINE PREEZING MOMENTS, REPOUTING OR WASPING OF CRITICAL CONTROL LINES, AND OTHER LINES NECESSARY TO WENICLE OPERATION, 18 BEING BONE ON A SELECTIVE BASIS ALONG MITHOROGOUING ENGINE BOLTS.	ACTION IS PLANNED CONCERNING LINES, AND OTHER LINES NECES BOLTS.	INSTRUCENTATION AS	MATION, 11	TEE2106	OLEVES, RESOUTING HE OR A SELECTIVE	
PROPULSION-MAS-A/B GD/C-BAF6S	10/C-84765-009/A1-401-00-211	P.1647	\$110 \$90 22 7	A-1/VIR	VE3 NO	3
FAILURE MODE-LEAR-EXTERMAL, LOX INPINGING ON THE SUSTAINER PLEL PUMP DISCHARGE PRESSURE TRANSDUCER SENSE LINE CAUSE D YEN-CHARY FREEZING OF THE PLEL IN THE LINE, EXACT SOUNCE OF LEAR IS UNENCHAL.	. LOK IMPINGING ON THE BUBTAINES PUEL PUMP DISCUANG. PUEL IN THE LINE. EXACT BOUNCE OF LEAK IS UNKNOWN.	UEL PUMP DISCHARGE LEAK IS UNKNOON.	PESSURE	TRANSDUCE	SEDISE LINE CAUSE	
SYSTEM DIFECT-MOME. LEAR MAS OF SUCH SMALL INGITIDE THAT ENGINE PERFORMANCE WAS NOT APPECTED.	SUCH SMILL INGITIDE THAT DIG	INE PERPORMINEE UNI	HOT APPE	ē		
WENICLE EFFECT-NOME. BUBTAINER FUEL FUNF DISCHARGE PRESSURE INSTRUMENTATION SCHOE LINE FROZE AS A RESULT OF THE LOX LEAR.	FULL FUR DISCUREE PRESSURE	INSTRUMENTATION SE	19C LINE F	NOZE AS A	RESULT OF THE LOS	
CORRECTIVE ACTION-NO CORRECTIVE ACTION IS PLANNED CONCERNING INSTRUMENTATION SENSE LINE PREEZING, HOMEVER, REROUTING 6 OR MARPHING OF CRITICAL CONTROL LINES, AND OTHER LINESBEART TO WENTELE OPERATION IS BEING DOME.	ACTION IS PLANNED CONCERNING L LINES, AND OTHER LINESNECES	INSTRUCENTATION SE	ASE LINE !	REEZING. BEING DO	HOLEVER, REROUTING.	
PROPULSION-MS-A/B FTABERA BUSTAINER TURBORU	TABERAPE-ND-61-OACS TABOPUR REAL	COMPOST TE-F18/10PL	113060	SOL/ETR	YEA 451807-71 NO	44.5
FAILURE MODE-LEAK-INTERNAL. SUBTAINER TUBGORUMP SMAPT SEAL LEAKED INTO PUNP BEARING CAVITY AND THEM INTO SUSTAINER	TAINER TURBOPUNP BHAPT BEAL L	EAKED INTO PURP BEA	ATHE CAVIT	7 AM 7	IN INTO SUSTAINER	
SYSTEM EFFECT-CONTAMINATION.					. .	
VEHICLE EPPECT-HOIG.					+ 6.	
CORRECTIVE ACTION-CLORED BODGERS ATER INVESTIGATIONS DETERMINED FU	COGSTER AND SUSTAINER PREVALVES AND DRAINED INE ENGINE SYSTEM IN CODER TO CONTINUE TEST.	DRAINED INE EMBINE FICATIONS.	8787EH 11	OPDER 1	CONTINUE TEST. L	
PROPULSION-MAS-A/B FTABES	TASSEL/PS-THO-01-5301 NASTAINER TURBO PURP SHAFT SEAL	CORTOR I TE-FRE/DPL	303088 1088	14.ETR	YES ROCKETBYNE	
FAILURE MODE-INTERNAL LEAR. GREENED FUEL LEARAGE PROM BUSTAINEN TURBOFUNF BHAFT BEAL INTO MUNDER & BEARING CAVITY AND LUGE OIL DRAIN MANIFOLD.	CAMED PUEL LEARANE PROM BUBTA	INER TURBOPURE BILL	T 86AL 1N		8 BEARING CAVITY	
STREET EFFECT-CONTANINATION. FUEL CONTANINATION IN DEARING CAVITY AND LUBE OIL DRAIN MANIFOLD	D. CONTANIMATION IN DEARING C	AVITY AND LUBE OIL	DRAIN MAN	900		

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100 mm 1000	DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRSORNE	SION SYSTEM-AIRBOR	¥				
8787EM 848-8787EM	TEST/REPORT NUMBER PAILED COMPONENT NAME	DIF GATA BOURCE PART HUNGER	VEHICLE DATE DIF	817E 71HE DIF	2 0 2 x	VENDOR NAME VENDOR PART NO	
ATATEM EFFECT-OPERATION ME PERFORMANCE BETAEEN EN	N TOD LOW. CLOBURE OF THE LOST MEAD BUT	THE LOX MEAD BUPPRESSION VALVE CAUSED A DETERIORATION IN SUSTAINER CHAI	#50 A DC1	A 1 CM A 1 1 CM	=	W87A1MEA CM61	
WINICLE EFFECT-MOME.	MECTINE ACTION TAKEN.						
ROPULSION-MS-A/B	NALWE-P/VU	FAR E7-43010-E1	2500 640723	£	5 g		***
FAILURE MODE-OUT OF TOLE BITTON VOLTAGE NAS 0.05 V PER SIGNAL VOLTAGE FROM C ALVE. THIS COMDITION APPA	ERANCE-DURING P/V SYSTEM CNECROUT, THE NOWINAL VALVE ANGLE HAS OUT OF TOLERANCE AND VALVE PO- VOLT HISM. FAILURE OF VALVE TO RETURN TO THE CORRECT NOMINAL ANGLE CAN SE CAUSED BY AN IMPRO- COMPUTER COMMENTOR OR BY PRICTION IN THE VALVE, TROUBLE REPORTED HAS CAUSED BY A STICKING V PARENTLY CORRECTED STRELF AS NO ADDITIONAL VALVE TROUBLE HAS CREENYED.	NE NOVINAL VALVE AN N TO THE CONNECT NO N THE VALVE, TROUBLE IONAL VALVE TROUBLE	MINAL ANGLE RES CA	T OF TOLI E CAN BE WAS CAUS	CAUSE CAUSE CAUSE	AND VALVE PO D BY AN IMPRO A STICKING V	
CORRECTIVE ACTION-TAKE &	NECESSARY ACTION TO MAVE CLANIFYING STATDIENTS ADOED TO EXISTING PROCEDURES TO CLIMINATE REJ NETS WIDS FAILURES ARE CAUSED BY STICKING VALVES IN THE EXCINE.	DIATDIENTS ADED TO LING VALVES IN THE	CKI STIME CHÁINE.	POCEDURE	\$	CLINIMITE REJ	
MOPULSION-MS-A/B BUSTAINER	GDA/APZ 84-033/A1-401-00-E48 LUBE OKL MANIFOLD	n.	£430 \$40\$1\$	A-1.MR	# 6	YES ROCAETDYNE NO	
FAILURE MODE-OUT OF EAPE I DURING THE COURSE OF BL URING BURTAINER ENGINE OF	FAILURE MOSE-OUT OF EXPECTED TEST VALUE, THE SUSTAINER LOW PRESSURE LING OIL MANIFOLD PRESSURE DECREASED ONLY 13 PS. Ouring the course of bustainer dusing operation. Monmally, a decrease of approximately 30 to 95 PSI IS Evidenced d Ring bustainer dusing operation.	MEDAURE LUBE OIL H A DECREASE OF APPR	ANIFOLD PE	ESSURE DE 30 10 55	CONTAIN PB1 1	ED CHLY 15 PE	
BYSTEN EFFECT-NOIC.							
VENICLE EFFECT-NONE.							
PROPUL B CON-MAS-A/B BUSTA INER	COA/BETEL-016/LS-401-00-331 BUSTAINER ENGINE-6AS GENCRATOR	7.18T	3910 640423	E-3/PALC 0	5 G	E-S/PALC YES ROCKETOVNE 0 NO	:
FAILURE MODE-OUT OF EMPL R INJECTION MANIFOLD PREI BYBTEN EFFECT-OPERATION	FAILURE MODE-OUT OF EXPECTED TEST VALUE. BUSTAINER ENGINE THRUST CHANGER PRESSURE, FUEL PURF DISCHARGE PRESSURE, LO K INJECTION MANIFOLD PRESSURE AND 6AS GENGRATOR DISCHARGE PRESSURE ALL INDICATED LOM ENGINE PERFORMANCE. SYSTEM EFFECT-OPERATION TOO LOM, BUSTAINER ENGINE PERFORMANCE AT LIFTOPF WAS LOW AND DECREASED MORE THAN EXPECTED D	HUST CHAMBER PRESS ISBURE ALL INDICATE IE AT LIFTOPF WAS L	D LOW ENGL ON AND DEC	PUMP DISK NE PERFOR	CHARGE CHARGE TA	AN EXPECTED D	
	A PRINCIPAL DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DE LA COMPANIA DE LA COMPANIA DE LA COMPANIA DEL COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA DE LA COMPAN				1		
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97.87EW BLB-87.9TEW	TEST/REPORT MUMBER PAILED COMPONENT HAND	DIF DATA BOUNCE PART HANDER	VEHICLE DATE DIF	817E PR1		VENDOR NAME VENDOR PART NO	
PROPULSION-NAS-A/B BUSTATUER	86/ABRP64-004/L3-408-00-209	PL1047	2000 40221	: 3 :	2 8		•
FAILURE MODE-EXTERNAL LE BY LOW THRUST SECTION TO	LEAR. LON LEAN PROBABLY IN NIGH PRESSURE PEED SYSTEM BETHEIN LON PURP AND INJECTOR. EVIDENCEI TEMPERATURES AND PROSEEN SUSTAINER PUEL PURP INSTRUMENTATION DISCHARGE TRANSCUCER SENSE LINE.	LABURE PEED BYSTEM BET THEL PUMP EMSTRUMENTAL	TON DISCH	MEE TRAN	INJECT POUCES	AND INJECTOR. EVIDENCED TRANSPUCER BENNE LINE.	
SYSTEM EFFECT-NOIC.							· · ·
VENTCLE EFFECT-NOIE.							
CORRECTIVE ACTION-NO.							
FROPULSION-MS-A/B	FTABS49/PE-4CO-03-190	COSTOSITE-J FACT	1990	12/ETA	ដ្	YES BOCKETOYNE NO	****
FAILURE MODE-LEAK-EXTERN 81MG LINE.	TERIAL. HYDRALLIC PLUID LEARAGE AT A 8-MIT ON THE SUBIAINER GAS GENERATOR PROPELLANT VALVES CLO	B-MIT ON THE SUBIAIN	3 3 5 3 55	CRATOR PR	3	INT VALVES CLO	
BYSTEN EFFECT-DEPLETION	ION OF LIBUID SUPPLY.						
WENICLE EFFECT-CONFOSITE	ITE DELAYED.						
CORRECTIVE ACTION-TIGHTDED B-MUT.	DED B-NUT. FURTHER CORRECTING ACTION IS UNKNOWN.	TICH IS UNKNOWN.					
PROPULSICH-NAS-A/B BUBTAINER	FTA8549/PE-4CO-03-199 VALVE-CHECK-646 BOOTSTRAP	COMPOSITE-J FACT	1980	12/CTA 245	20	YES RICKETDYNE NO	*
FAILURE MODE-OUT OF EXPECTED V	CHECTED VALUE. THE ORIFICED 866 BOOTSTRAP CHECK VALVE WAS BEING HELD OPEN WITH CONTANINATION.	TOTRAP CHECK VALVE UN	3 9E13E 1E	9 OFF	2 5	DNTANIMATION.	
STATEM EFFECT-OPERATION WECO SECAUSE OF BACK-UP	BYBIEN EPTECT-OPERATION TOO NIGH. OPEN CHECK VALVE REBULTED IN AN ABNORML PUEL DUCT PREBBURE RIBE BETHEEN BECO AND WEG BECAUSE OF BACK-UP OF VERHIER PUEL PURGE PREBBURE PABT INE CHECK VALVE.	TED IN AN ABNORMAL FU ABT THE CHECK VALVE.	EL DUCT 👫	Essuet Al	¥	NEEK SECO AND	
WAIGLE EFFECT-COMPOSITE DELATED.	E DELATED.						
CORRECTIVE ACTION-CHECK NOTING AREA WERE CHECKED A	CORRECTIVE ACTION-CHECK VALVE WAS REMOVED, CLEANED AND REINSTALLED. ALL OTHER TRAPS FOR CONTANINATION IN THE SURROW DING AREA WERE CHECKED AND NO PURTHER CONTANINATION WAS FOUND.	EINSTALLED. ALL OTHER FOUND.	TRAPS FOR	CONTANIN	A 11 Q	IN THE BURBOU	
PROPULBION-145-A/B SUSTAINER	AA63-0037/PZ-4CO-01-243 BMT7CH-PROFELLANT BEPLETION	COMPOSTIE-D FACT	8630 636016	12/578 NO 7.45 E23 NO	22		<u> </u>
PAILURE MODE-PREMATURE (NE CPERBOLING. PHENNATIC PRESSURE TO THE PROPELLANT BEPLETION SMITCHES WAS INABVERTANTLY CHITTES MELLS THE DECO CIRCUITATE. THE SMITCHES WAS CUTOPFE.	HE PROPELLANT DEPLET	on and ten	:	5	TANTLY CHITTED	
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DIFFICULTIES REVIEW-PROPULSTON SYSTEM-AIRBORNE

WHICE TYPE:-MEANING NAVING CONDERT MARK WESTER FILL CONDECTIVE AND CONDECTIVE AND CONDECTIVE AND PART OF THE TYPE AND CONTROL OF THE TYPE AND CONDECTIVE AN		
TIGITATION NUMBER FILIDATE CONTROCKY NAME FILIDATE FI		
TITUTO COMPONENT NUMBER TALLED TALLED TO THE ANTICOLOR TO THE ANTICOLOR TO THE ANTICOLOR TALLED TALLED TO THE ANTICOLOR TO THE NUMBER THE TALLED TALLED TO THE ANTICOLOR TO THE NUMBER THE NUMBER THE NUMBER THE TALLED TALLED TO THE ANTICOLOR TO THE NUMBER THE TALLED TALLED THE TALLED		ACTION-MENUE COCCUTET IN DICHECT
REMAINSE RUNCHET. REMAINSE RUNC		spice presume.
REALINE SUSTAINER CUTOF. FIGURE SUSTAINER CUTOF. MACHINER SUSTAINER CUTOF. MACHINER SUSTAINERS SUSTAINERS SUSTAINERS SUSTAINER SUSTAINERS SUSTAINER		STREET CITECT-OPENION DOES NOT START.
TEST/SECOND HUMBER DIP DIP DIP DATA BOARCE VEHICLE BITE PRI VENOGO PARS NO FEMALURE SANTANEE VEHICLE COMPONENT MANY PARTY NAME OF THE SANTANEE VEHICLE DATE OF THE SANTANEE VEHICLE DATE OF THE SANTANEE VEHICLE OF THE SANTANEE VEHICLE OF THE SANTANEE VEHICLE OF THE SANTANEE VEHICLE OF THE COST NAME OF THE VEHICLE OF THE COST NAME OF THE VEHICLE OF T		FAILURE MODE-FAIL TO GPCRATE AT PRESCRIBED TIME. THE BUSTAINER HIS AND PU VALVES FAILED TO GO INTO CONTROL AND REDAIL HED FULL OPEN DIZING THE TEET. THE FAILURE TO OPERATE HAS THE REDAIL OF INADVENTENTLY USING GROUND MIRRING FOR CONTROL C. PLANFORCES AND THE GROUND MIRRING HAS FROM THE WINDLE AT UNBILICAL EJECT.
FALLED CONFOCRIT MANGE PART MANGER VEHICLE BITE PRI VENOR PART NO FRALLED CONFOCRIT MANGE PART MANGER DATE DIF THE DIF OTH VENOR PART NO FART	867.46	AASE-ODAS/PS-4CO-05-71 COMPOSITE-J FACT 104D 36A/ETR PU AND HS VALVES, MERING GEOSEE D
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THE TOTAL-OLD STREET TO BE RECEETIVE. FF-TOE-OLD STREET TE BASE BAGGOS -E BO THE LIGHTON THE VERNIED FLEE MAINTOND BATTOND OIL DOT HOLICATE PRESSURE. BAGGOS -E BO THE LIGHTON THE VERNIED FLEE MAINTOND BATTOND OIL DOT HOLICATE PRESSURE. INVESTIGATION REVEALED P. SE LINES BY HYPERCALC RESIDEE FROM THE ABORTED CALACH ATTON TO NO MARCH. THE SAITONES THEMBELVES TOWN CONDITION. SELICES BY HYPERCALC RESIDEE FROM THE ABORTED CALACH ATTON TO NO MARCH. THE SAITONES THEMBELVES THEM COLOUPT. SELICES BY HYPERCALL FERSION STATE MORE CLAMITY ING PROCEDURES TO BE TAKEN AFTER AN ABORY. SELICES BY HYPERCALL FOR THEM TO THE TOWN THE STATEM TO THE SAITON TO SECOND TO SECOND TO SECOND TO SECOND TO SECOND TO THE SELECT TOWN THE SELECT WAY THE SECOND TO SECOND TO THE COLOURS THE DAGING LOST TAKE TO PACE AND MACHET THE DAGING LOST TAKE THE MAIN HE SECOND TO THE SECOND TO T	STATES EFFECT-SOR.						
PETTOR-NO. SOUTH TO BE RECKETOTHE. PETTOR-NO. SOUTH ETRIE TE NAME BE NO. BETTOR TO BE NOT THE WORLD OF THE TEST TO SO WHICH. THE SHITCHES THE NAME TO BE CHAIR THE SET THE S	WOIGH EFFET-HOM.						
THE TON-MESSARE SOLI ETRIE TER NO SOLICE-PRESAURE SOLICE NO THE ICHTICAL THE WENLED FACE, WANTEGED BATTCHS DID NOT INDICATE PRESAURE. INVESTIGATION REVEALED PAGE CENTION DOES NOT START IGAILING NAME LIMITED AND CATOLING. THE SALITCHES	CORRECTIVE ACTION-BLADE	VALVE MAS HODIFIED BY ROCKETOTHE.					
THE IGNITION THE VERHIER FUEL MUNICALD BATTOLS DID HOT INDICATE PRESSURE. INVESTIGATION REVEALED P. SE LIKES BY HYPOROGIC RESIDES FROM THE ABORTED CAUGH ATTERY ON 50 WARCH. THE SHITCHES TROORS TO TONY COMDITION. CHATCON DOES NOT START IGNITION STARE LIMITED NUTTHER CUTOFF. HE LAUGH WAS ABORTED. HE COLEMPS—ONT/LL-T01-00-7115 F.I.GMT 7118 E-4/PALC YES START LOX TAN TO RELIEV VALVE TO PRESURE LOY TAN PRESURE LOY A PERIOD OF 30 SCOOD A FOR EACH DOT TO STAND THE DESINE LOY TAN TO RELIEV VALVE TO PRESURE LOY IN THE DESINE LOY TAN TO RELIEV VALVE TO STAND TO PRESURE LOY IN THE DESINE LOY TAN TO RELIEV VALVE TO STAND TO	PROPULSION-NAS-A/B VERMIER	PE-70E-00-5001 8477CH-PRESSURE	COUNTDOM	5001 660409		EB HAA 40	•••
SEATION DOES NOT START IGNITION STARE LIMITED INITIATED CUTOFF. WE LAUNCH WAS ABORTED. WE LAUNCH WAS ABORTED. WE LAUNCH WAS ABORTED. SOCIORATES087/LA-TD1-00-7115 STATE LOK TANK RELIEF VALVE SOCIORATES087/LA-TD1-00-7115 STATE LOK TANK RELIEF VALVE OF EXPECTED VALVE. FOLLOWING VERHIER ENGINE LOX TANK PRESSURIZATION AT BECO. A PERIOD OF 30 SECOND STATE LOX TANK RELIEF VALVE OF EXPECTED VALVE. FOLLOWING VERHIER ENGINE LOX TANK PRESSURIZATION AT BECO. A PERIOD OF 30 SECOND AND THE ENGINE LOX TANK RIGH PRESSURE RELIEF VALVE IS CONSIDERED MOST PROBABLE CAUSE. NE. OOM: SE-AND-01-61 OOM: SE-AND-01-61 COMPOSITE-PROPER SID STATES VALVE LEAKED. SE-AND-01-61 COMPOSITE-PROPER SID SECOND SECOND TITING ON THE RELIEF VALVE TO A PLANG CHECKNALVE SE-AND-01-61 OOME	FAILURE MODE-DURING IGNI UGGING OF THE SENSE LINES WERE IN SATISFACTORY COM	TION THE VERNIER FUEL MANIFOLD BAT BY HYPERCOLIC RESIDUE FROM THE AB DITION.	TONS DID NOT INDICAT DATED LAUNCH ATTEMPT	E PRESSUR! ON 30 MAI	E. INVESTI-	HATION REVEALED PLATICHES THEMSELVES	
HE LALMCH UND ABORTED. HE COLORFES - ONLY - PAPER NORK CLARIFYING PROCEDURES TO BE TAKEN AFTER AN ABORY. GO/CONFES - ONLY - ON	SYSTEM EFFECT-OPERATION	DOES NOT START IGHITION STACE LINE	ID INITIATED CUTOFF	٠			
START LOK TANK RELIED PAPER WORK CLANIFTING PROCEDURES TO BE TAKEN AFTER AN ABORY. START LOK TANK RELIED VALVE START LOK TANK RELIED VALVE OF EXPECTED VALUE. FOLLOWING VERNIER ENGINE LOX TANK PRESSURIZATION AT BECO. A FERIOD OF 30 SECOND A PER EDGINE LOK TANK FOR EACH HOW THE STEPLY IS CONSIDERED MOST PROBABLE CAUSE. NE. NE. ONE. SE-AND-01-61 COMPOSITE FROM A BULKHEAD FITTING ON THE RELIEF VALVE TO A FLANS. BE-AND-01-61 COMPOSITE FROM THE START WENT CHECK VALVE LEAKED. HERMERNL. EMBINE FAEL TANK VENT CHECK VALVE LEAKED. HERMERNL. EMBINE FAEL TANK VENT CHECK VALVE LEAKED. HAMMINATION.	WENTELE EFFECT-THE LAUNC	H INS ABOUTED.					
GO-CONFRS-007/14-701-00-7115 FLIGHT 7113 2-4/PACK YES START LOX TANK RELIEF VALVE OF EXPECTED VALUE, FOLLOWING VERNIZER DAGINE LOX TANK PRESSURIZATION AT BECO, A PERIOD OF 30 SECOND R THE ENGINE LOX TANK TO REACH HOWINAL LOX SYSTEM TOE PRESSURE LEVEL WHEN IS SECONDS IS MAXIMUM EXP KAGE THROUGH THE ENGINE LOX TANK HIGH PRESSURE RELIEF VALVE IS CONSIDERED HOST PROBABLE CAUSE. ONC. WE - AND RICKETDINE ARE SUBMITTING A CHARME FROM A BULKHEAD FITTING ON THE RELIEF VALVE TO A FLANG C. LADER CAYOLELIC PRESSURE CONDITIONS INDICATES THAT THE SULKHEAD FITTING LEAKS. RE AND-01-41 CONSTITUTIONS INDICATES THAT THE SULKHEAD FITTING LEAKS. RE AND-01-41 CONSTITUTIONS INDICATES THAT THE SULKHEAD FITTING LEAKS. RE AND-01-41 CONSTITUTIONS INDICATES THAT THE SULKHEAD SILLOW NO. RESTREAML. ENSINE PUEL TANK WENT CHECK VALVE LEAKED. STANDARD CONTINUE.	CORRECTIVE ACTION-ROCKET	DYNE INITIATED PAPER WORK CLARIFY!	46 PROCEDURES TO BE	TAKEN APTI	TR AN ABOR		
OF EXPLCTED VALUE, FOLLOWING VERNIER ENGINE LOX TANK PRESSURIZATION AT BECO, A PERIOD OF A THE ENGINE LOK TANK TO REACH HOWINGLED WERE SENTED WERE LEVEL WERE 15 SECOND 15 MAKAGE THEOLOGY THE EDICINE LOX TANK NIGH PRESSURE RELIGT VALVE IS CONSIDERED MOST PROBABLE CONE. ONE. ONE. BE-AND-01-61 BE-AND-01-61 CONFORTE-PROPONE, 61D BE-AND-01-61 BE-AN	PROPULSION-NAS-A/B PERMIER	60/CBKF85-067/L6-701-00-7115 START LOX TAM RELIEF VALVE	FLIGHT	7113	E-4/PALC 148	63)	•
ONE. M-SOC AND ROCKETDYNE ARE SUBMITTING A CHANGE FROM A BULKNEAD FITTING ON THE RELIEF VALVE 1 G. LADER CAYOCENIC PRESSURE CONDITIONS INDICATES THAT THE SUKNEAD FITTING LEARS. B.EAND-01-81 COMPOSITE-PRD/DPL 61D 82/VTR YES CHECKVALVE 681100 H-EXTERNAL, EMBINE PUEL TANK WENT CHECK VALVE LEAKED.	FAILURE MODE-OUT OF EXPE B MAS RESULTED FOR THE DI ECTED. MELIUM LEAKAGE THR	CITED VALUE, FOLLOWING VERNIER ENGINERIES ENGINE RINE LOK TANK TO PEACH NONIMAL LOX ROUGH THE EMBINE LOX TANK HIGH PRES	E LOX TAIN PRESSUR! BYSTEM TOE PRESSURE SUME RELIGY VALVE IS	LEVEL NAT	DECO, A PI EN 15 SECO ED MOST PRI	CRICO OF 30 SECOND OS 18 MAXIMUM EXP BABLE CAUSE.	
ONE. W-GOC AND ROCKETDYNE ARE SUBMITTING A CHANCE FROM A SULEMEAD FITTING ON THE RELIEF VALVE 16 UADER CAYOCEMIC PRESSURE CONDITIONS INDICATES THAT THE SUCHWEAD FITTING LEARS. BE-4MO-01-81 COMPOSITE-PRD/OPL 81D 82/VTR YES CHECKVALVE -EXTERNAL, EMSINE PLEL TANK WENT CHECK VALVE LEAKED.	SYSTEM EFFECT-NOIC.						
H-ECC AND ROCKETDYNE ANE BUBNITTING A CHANGE FROM A BULKHEAD FITTING ON THE RELIEF VALVE TO LANGER CAYOGENIC PRESSURE CONDITIONS INDICATES THAT THE BURKHEAD FITTING LEAKS. BE-AND-01-61 CONCOUNTER OF CONTROL OF THE STAND BE AND THE RELIEF OF THE STAND BE AND THE STAND BEAUTIFUL BE	VEHICLE EFFECT-NONE.						
BE-AND-01-61 BE/VIR YES CHECKYALVE 61100 BE/VIR YES CHECKYALVE 691100 BE/VIR YES NO HEXTERNAL. EMBINE PLEL TANK VENT CHECK VALVE LEAKED.		D ROCKETDYNE ARE BUBNITTIWG A CHANN CRYGERIC PRESSURE CONDITIONS 14D1	je from a Bulkmead f Lates that the Bulkh	1711M6 ON EAD FITTI	THE RELIES	" VALVE TO A FLAME	
	PROPULSI CH-MAS-A/B VERNI EP	26-400-01-61 CH2CK VALVE	CONTOOL IT-PRE/BPL	61100		t e	
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991918 636369 1111 CORRECTIVE ACTION-ROCKETOVNE 199UED MA-5 APIN 98 AND MA-E APIN 19 TO CHECK PROPELLANT VALVES FOR LOM STRENGTN LOK P OPPET SHAFTS. ROCKETOVNE ALSO CEASED USING RENORED LOX POPPETS IN THE BUILDUP OF OVERHAULED PROPELLANT VALVES, VERN FAILURE MODE-FAIL DURING OPERATION. AT T-1.9 SECONDS THE VE ENGINE BEGAN TO PLANE OUT AFTER D.5 SECONDS OF NORMAL B TART-TAING-PED OPERATION, POSSIBLY DUE TO CONTAININATION IN THE VE LOW FEED BYSTEN. OTH VENDOR PART NO FAILURE MODE-LEAR-EXTERMAL. AT PULL SYSTEM PPESSURE A MINOR LEAK WAS DETECTED DURING POST TEST INVESTIGATION AT THE FAILURE MODE-FAIL DURING OPERATION. AT Y-1.9 SECONDS THE VE ENGINE BEGAN TO FLANE OUT AFTER 0.9 SECOND OF NORMAL ST ART-TAME-FED OPERATION, POSSIBLY DUE TO A MALFUNCTION OF THE LOX POPPEY IN THE PROPELLANT VALVE. SYSTEM EFFECT-OFERATION TOO MIGH. AS A RESULT OF VE BHUT DOMN, THE VI ENGINE EIMIBITED ABNORMALLY-HIGH CHAMBER PRESSURE (APPROXIMATELY 10-PERCENT) FOR THE DURATION OF ENGINE OPERATION. 1.9 DECARES LESS THAN PLANMED, SINCE THE ATTITUDE CORRECTIONS DURING YEARIER PHASE WERE COMPLETELY ACCOMPLISMED. THE MISSION OBJECTIVES WERE ACCOMPLISMED DISPITE THIS ERROR. ICA MANIFOLD PRESSURE SMITOMES IN TWE VEHICLE NELEABE LOGIC HAS BEEN RECOMMENDED. ALSO ADDITIONAL FILIERS IN TWE VER DESCRES LESS THAN PLANED; SINCE THE ATTITUDE CONFECTIONS DURING WENTER PHASE WERE NOT COMPLETELY ACCOMPLISHED. THE MASSION OBJECTIVES WERE ACCOMPLISHED THIS ERROR. BFSTEM CFFECF-OPERATION TOO NIGH. AS A REBULT OF VE SHUTDOMN, THE VI ENGINE EXHIBITED ABHOMMLLY HISH CHANGER PRESS VEHICLE EFFECT-PRENATURE VERNIER ENGINE SHUDGAN, OVE TO THE VZ LOSS, THE INCLINATION ANGLE OF THE FINAL CABIT MAS WHICLE EPTECT-PREMATURE VERNIER EMITME MUTDOMN, DUE TO YE LOBD, THE INCLINATION ANNLE OF THE PINAL CHRIT WAS 1.0 YES ROCKETDYNE VEB ROCKETDYNE ž š WENICLE SITE 2-4/PALC 13/ETA -1.0 13/ETA 22.50 950720 711E 990720 CDC/22H65-DE1-DA1053-/LA-THO-01-71 COMPOSITE-FR0/OPL PART NUMBER LINE CAPPROXIMATELY 10 PERCENTY FOR THE DURATION OF ENGINE OPERATION. 3 40C/BAF63-051/P3-402-00-E25/1494 PROFELLANTVALVE.POPPET DOTTLE STORAGE -LOX START TANK-40C/BHF63-031/P3-402-00-2250 PROPELLANT VALVE TEST/REPORT MUMBER FAILED COMPONENT MANE FITTING TO THE BOTTON OF THE LOR START TANK. CORRECTIVE ACTION-THE LEAK WAS REPAIRED. CORRECTIVE ACTION-CHECK VALVE REPLACED. HICRS AND ACE HAVE BEEN SUBMITTED. VENICLE EFFECT-COUNTDOM ABORTED SYSTEM EFFECT-NOICE. VENICLE EFFECT-NOVE 849-318TEM PROPULSION-NAS-A/B PROPULSION-NAS-A/B PROPULSION-MAS-A/B

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	SITE PRI VENDOR MANE	ANIER MANIFOLD		THE RESULT OF A LOK LEAK BETWEEN BECO OR STACING, S) STAGE-LATCH FA STAGING BOLT DUE TOLATE ACTUATION	ED AT THIS LEV	NOVED INDOARD ED ON THE BUST IN 550 FT.	OF THE VERNIE	ROCKETDYNE	WEAR THE VERHI INTO THE VALV	ET FACH CLOSIN TO LOCKUP AND		L IN THE VALVE ON THE LOS NA
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		PORATION (2-4/PALC 185.000	REBULT OF OR BIAGIN NG BOLT D	PSI AND R	THE Y2 ED T CASES II CRECATED	GHT THISPETENTE	2-4/PALC NO 130- NO	E IN THE C	THE FUEL TANK PRESI		ILL BE SM
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SION BISTER-AIRDON	DIF DATA BOUNCE PART MUNDER	AND AGE PLUMBING.	r.iest	7 BTAGING MOBT PROB LIVIDRATION INDUCED DEBRIG, B) BMEARING	IGEN PRESSURE DECRE (8PSI).	WEN YERNIER SOLD ESULT OF THIS, THE ME TENP TO PEG OFF	E SYSTEM AND THOROUM	P.I.GAT	UPSTREAM OF THE GO LVE COULD PREEZE. A	OF THE VALVE, WOLL PAILURE OF THE FU		VALVE COULD PREESE
DIFFICULTIES REVIEW-PROPULATION ATTER-ATFECENT	TEST-REPORT NUMBER FAILED COMPONENT NAME	CORRECTIVE ACTION-OPEN. ADDITIONAL STRAINERS IN THE VERNIER AND AGE PLUMBING, AND INCORPORATION OF VERNIER MANIFOLD Pressure switches in the Venicle Release Logic have been recomended.	60c/8xf83-638/L4-701-50-7108 Vt. THRUST CHANBER	EXPECTED VALUE. VI PERPORMANCE CHANKE AT BTAGING MOST PROBABLY THE RESULT OF A LOX LEAK BETHEEN THE WERNIER PROP VALVE POSSIBLY DUE TO 11VIBRATION INDUCED AT BECO OR STACING,?) STAGE-LATCH FA IN DISINTEGRATION AND BUBSEQUENT PLYINGDEBRIS, B) BHEARING OF STAGING BOLT DUE TOLATE ACTUATION FE DEBRIS.	SYSTEM EFFECT-OPERATION TOO LOW. DURING JETTISON THE YI CHANGER PRESSURE DECREASED 156 PSI AND REMAINED AT THIS LEV EL THROUGHOUT SUSTAINER PHASE. YE DECREASE MAS INSIGNIFICANT (8PSI).	VENICLE EFFECT-NOME, AS A RESIALT OF THE VI DECREASED THAUST WHEN VERHIER SOLO OCCURRED, THE VZ ENGINE MONTO INBOARD ES DECREES TO PROVIDE PROPER VENICLE CONTROL IN YAW, AS A RESULT OF THIS, THE YZ EXMAUST GASES INPINCED ON THE SUSTAINER ENGINE INSTRUMENTATION PAREL, TOP PROBE WHICH CAUSED THE TENP TO PEG OFF SCALE MIGH (GREATER THAN 550 F).	CORRECTIVE ACTION-INSPECTION OF 8-NUTS IN THE VERNIER ENGINE BYSTEN AND THOROUGH PREFLIGHT INSPECTION OF THE VERNIER REASS. VIBRATION TESTING OF THE VERNIER DEFICIENCIES.	GOC/BKF85-G36/L4-701-OD-7108 PROFELLANT VALVE	FAILURE MODE-FAIL DURING OPDIATION. LEAK IN THE VI LOK LINE UPSTREAN OF THE GD/C ONIFICE IN THE AREA WEAR THE VONKI EN PROP VALWE, IF LOK MEDE INPINGING ON THE PIEL MALF THE VALWE COULD TREEZE. ALBO, IF LEAKAGE OF FUEL INTO THE VALV E OCCURRED THE POSSIBILITY OF FREEZING MOULD INCHEASE.	BYSTEM ETFECT-OFERATION TOO LONG. FREEZING OF THE FUEL HALF OF THE VALVE, NOULD PREVENT THE FUEL POPPET FROM CLOSIN 6 AT VECO AND NOULD EXPLAIM THE CONDITIONS WHICH OCCURRED. 1) FAILURE OF THE FUEL START TANK PRESSURE TO LOCKUP AND 2) VI CHANGER PRESSURE LEVEL AFTER CVT-OFF.		COMPECTIVE ACTION-TESTS PERPONED BY ROCKETOTHE BROKED THE VALVE COLLD PRETEE AND THE PRESENCE OF FUEL IN THE VALVE MOULD INCREASE THE POSSISILITY OF PREEZING. FURTHER TESTS WILL BE CONDUCTED WHERE LON WILL BE SPRAYED ON THE LON MA F OF THE VALVE.
****	SYSTEM SUB-SYSTEM	CORRECTIVE ACTION-CPEN, & PRESSURE SWITCHES IN THE	Propulsion-MS-A/B Wernier	FAILURE MODE-OUT OF EIPECTED THE GOC ORIFICE AND THE VERNI JLURE WHICH RESULTED IN DISINIT AND BABBEGUENT FLYING DEBRIS.	BYSTEM EFFECT-OPERATION OF THEORY	VENICLE EFFECT-MOME. AS A ES DEMEES TO PROVIDE PRO AINER ENGINE INSTRUMENTATI	CORRECTIVE ACTION-INSPECT	PROPULSION-MS-A/B VERHIER	FAILURE MODE-FAIL DURING DR PROP VALVE. IF LOK WEN E OCCURRED THE POSSIBILITY	SYSTEM EFFECT-OPERATION TOO LONG. PREEZING 6 AT VECO AND NOULD EXPLAIN THE CONDITIONS 2) V3 CHANGER PRESSURE LEVEL AFTER CUT-OFF.	World Errect-HOME.	CONECTIVE ACTION-12519 INDULD INCHEASE THE POSSIS

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STSTEM EFFECT-OPERATION TOD MISM. THE SEA MEMBATOR QUILET PRESSURE AND THE VERHIER EMSINE FUEL TANK PRESSURE EMIS Thes assumman incorrage speck see and see pasa respectively? To sto pasa between lettisch 1937 secchas) and 150 seco

FAILURE MODE-FAIL TO OPERATE. THE ISOLATION CHECK VALVE IN THE MENNIER EMBINE LON TAIN PRESSURIZATION LINE FAILED TO CLOSE WENT THE LON TAIN PRESSURE NOWE THE REGULATOR QUILLE PRESSURE.

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161. REGULATOR PRESSURE TO	THEN DECREASED TO SOO POIR AND FUEL TANK PRESSURE MAINTAINED AT 670 POIR UNTIL SECO.	L TANK PRESSURE MAINT	AINED AT	170 PBIA U	111	MCO.	
VEHICLE EFFECT-NOIC.							
CORRECTIVE ACTION-CHECK V	VALVE POPPET AND BEAT WERE REDEBLONED PER ECP MAS-140.	CHED PER ECP 149-146.					
PROPULSION-MS-A/B	GOC/BRFCS-015/L3-TOZ-00-7104 START LOR TANK RELIEF VALVE	PLIGHT	7104 050312	2-3/PALC TES	2 Q		9
FAILURE NODE-OUT OF TOLES REQUIRED FOR THE ENGINE I HELIUM LEAKKEE THROUGH T-	FAILURE NODE-OUT OF TOLER-NCE, FOLLOWING VERNIER ENGINE LOX TANK PRESSURIZATION AT SECO, A PERIOD OF 30 ACCOMDS MAS Reguired for the engine lox tank to reach normal lox system tee pressure level when 15 seconds is baximum expected. Helium leakage through the engine lox tank migh pressure relief valve is considered mosable cause.	OX TANK PRESBURIZATIC EN TEE PRESBURE LEVEL RELIEF VALVE IS CONSI	N AT BECO. WHEN 15 (A PERICO ECONDS 18	P # 3	O SECONDS MAIL MAIN EXPECTED. IE.	
SYSTEM EFFECT-NOME.							
VEHICLE EFFECT-HOME.							
CORRECTIVE ACTION-GOC AND E FITTING TESTING UNDER	CORRECTIVE ACTION-GOC AND ROCKETDYNE ARE SUBMITTING A CHANGE PROM A BULKWEAD FITTING ON THE RELIEP VALVE TO A FLAME E FITTING. TESTING UNDER CRYGGENIC PRESSURE CONDITIONS INDICATES THAI THE BULKWEAD FITTING LEAKS.	HEE FROM A BULLUEAD FICATES THAT THE BULLY	1111186 OR	THE RELIE IS LEAKS.	A Y	WE TO A FLAM	
PROPULSION-NAS-A/B VERNIER	GO/C-BKF85-010/A3-402-00-301 VERNIES ENGINE LON TANK PRESS. LIN E ONECK VALVE	P.IST IN	3010 63030£	A-3/VTR 187	1E 8	VES ROCKETDYNE	04440
FAILURE MODE-INTERNAL LEAK. THANK RE-PRESSURIZATION. THIS REAMED INTO THE ENGINE FUEL TANK.	LEAK. THE VERHIER ENGINE LOK TAME PRESSURIZATION LINE CHECK VALVE FAILED TO CLOSE AT ENGINE. TWIS RESULTED IN THE VERHIER LOK PLED PRESSURE BEING METLECTED BACK THROUGH THE 185 MANIFOLD. TANK.	RESSURIZATION LINE CH ED PRESSURE BEING REF	LECTED BACK	FATLED TO	9 %	E AT EMBINE Y 185 HAMIFOLD	
SYSTEM OFFECT-OPERATION TOO MIGM. SUSTAINES NESS NESSE MIGMER THAN EXPECTED (670PSIA).	BYBICH OFFECT-OPERATION TOO HIGH. BUBTAINER PREUMATIC REGULATOR OUTLET PREBURE AND WERHIER ENGINE FUEL TANK PREBBU ES NERE HIGHER THAN EXPECTED (GROPSIA).	ULATOR CUTLET PRESSUR	E AND YEN	ACR CHEIN	2	1. TAIM PRESSI	
WHICLE EFFECT-NONE.							
CORRECTIVE ACTION-REDEBIN	CORRECTIVE ACTION-REDESIGN OF POPPET AND SEAT OF CHECK VALVE PER ECP HAP-148. REVERSE PLOM TEST OF CHECK VALVE.	LVE PER ECP MAP-148.	REVERSE PI	ON TEST O	8	CK VALVE.	
PROPULSION-NAS-A/B WERNICE	604-4P264-075/A3-401-00-800 148 REMALATOR	FLIGHT	3000	A-3/MR £70	100	YES ROCKETOVIE	***************************************
FAIL - E MODE-ERRATIC OPERATION. 180 REGUL DUR! - MENNIER BOLD PRAME. CAUME UNKNOWN.	operation. Isb reculator edhibited irrecular predouneogcillations of about 30 psi peak to peak Mage. Cause unknown,	ARTGULAR PRESSUREOSCI	LLATIONS	F ABOUT 3	Ĭ.	PEAR TO PEAR	
BYBTEN EFFECT-MOME.							
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MOPULSI CH-MS-A/B VENUER	A1-4MO-01-810 Vernel MEDI SCORSECT , G-RIMS	CONFOST TE-PRS/8PL	£190 €41108	A-1 /VTR	168 80		991160
FAILURE MODE-LEAR-ENTERMAL, LARGE BED BY BETERICARATION OF THE O-RING	HAL. LARCE FUEL LEAK NOTED ON VE ENGINE HORIZONTAL REGIDUAL FUEL DRAIN BUICK DIGCOMBECT. CAU The o-ring seal.	INE HORIZONTAL RESI	DML FUEL	DRAIN OU	ICR DISCOURCT.	3	
SYSTEM OFFECT-DEPLETION OF	OF LIEUTO SUPPLY.						
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CORRECTIVE ACTION-LEAR REPAIRED.	NEPATRED.						
PROPULSION-MS-A/B VEHILER	LV-66-06-3033F WRGE CHECKMLVE	FAR 87-02111-1	2900 641027	13/EM	VES MAROTTA NO		•••••
FAILURE WIDE-OUT OF SPECIFICATION. TWO UNITS RECATION THE VALVES METEATEDLY OPERATED PROPERLY.	FAILUME MODE-OUT OF SPECIFICATION. THO UNITS REJECTED FOR OPENING SLIGHTLY BELOW SPECIFIED PRESSURE. DURING INVESTI ATION THE VALVES MEDICATEDLY OPERATED PROPERLY.	FEMING BLIGHTLY BEL	ON SPECIFI	10 ACS	URE. DURING IN	Æ871	
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FAILURE MODE-ERRATIC OF	FAILUME MODE-ERRATIC OPERATION. PEGLATOR EMIBITED INNEGLAAR OGCILLATIONS OF ÅSOUT 60 PSI PEAK-TO-PEAK BURING WEN Er solo prase.	AR OBCILLATIONS OF	ABOUT BO (PBI PEAK-	TO-PEAK BURING	ş	
SYSTEM EFFECT-HOME.							
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CORRECTIVE ACTION-NOIL	AT THIS THE. ROCKETDYNE DOES NOT CONSIDER THIS A PROBLEM.	HEIDER THIS A PROBL	5				
AZINZA beginte i ch-me-a/e	COA-APIGA-O63/A1-401-00-243 DULIVELD FITTINGO, ENGINE LOK TANK PRESSURIZATION	PLIMI	\$180pp 0673	A-1 /MTR	168 80		001250
FAILURE NODE-LEAK EKTON CORDS AFTER REPRESSURIZAT	FAILURE MODE-LEAR EXTERNAL, YORNIGR BOLO LON TANK PRESSURE EINIBITED A PRESSURE BHIFT OF APPROXIMATELY 30 PSI 86 DE COMDS AFTER REPRESSURIZATION AT SECO MAICH IS INDICATIVE OF A LEAR AT INE EMFINE LON PRESSURIZATION PITTIMBS.	COMBITED A PREBBUR A LEAK AT THE ENFIN	C LON PRE	P APPROXI	MATELY SO PRI B	*	
SYSTEM CYTCS-NOG.							
WHELE EPTET-IONE.							
CORRECTIVE ACTION-CHANGE	CO FROM BULLINGAD FITTINGS TO PLAINGE PITTINGS. ECP MA-166 AND 165.	PITTINGS. ECP MA-10	0 AND 100.				
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DIPPICULTIES REVIEW-PROPULSION STREEM-AIRBORNE

	BITE DIF OTH VENDOR PART NO	AS/47R YES 001201	APPROXIAMATELY GO PSI 22 8			1068.	A-1/VIR TES ROCKETOVNE 8864£3	I PEAR-TO-PEAR DURING WEAN				A-1/1719 VES 000424	CHANDER PRESSURES EXPERIEN		-		F-3 VE9 00 00 00 00 00 00 00 00 00 00 00 00 00		FAILURE MODE-ENTERMAL LEAK. CONTROL BOTTLE PRESSURE BEGAN A DECAY OF BED PAI PER MINUTE IMMEDIATELY AFTER RETO-ROCK T PIRING. THIS INDICATES A LEAK. EXACT TIME OF LEAK START CAMBOT DE DETERMINED. LOCATION OF LEAK MAS BOWN STREM OF 186 RESULATOR.	MEDIATELY AFTER RETO-ROCK OF LEAK WAS BOAR STREAM OF	MEDIATELY AFTER RETO-ROCK OF LEAR IND BOUND STREAM OF	MEDIATELY AFTER RETO-ROCK OF LEAR IND BOAN BIREAN OF
	VEHICLE DATE DIF TI	E460 A1	NE LOK PRESI			PLANCE PITTI	2430 A-	ABOUT 50 PB				2430 A-	. *1 AIG WE C			,	2000 P-	PER HIMUTE 10	D. LOCATION O	D. LOCATION O	D. LOCATION O	D. LOCATION O
SPULBION BYBITH-AIRBO	DIF DATA BOUNCE PART HUNDER	PLICHT	A TANK PRESSURE EXHIBITED A PRESSURE BHIFT OF APPROXIAMATELY GO PS: INDICATIVE OF A LEAK AT THE EMSINE LOK PRESSURIZATION FITTINGS.			DULINEAD PITTINGS TO	Puer	HAAR OSCILLATIONS OF			A PROBLEM.	Plent	IN PUMP PED OPERATION				P.IMT	100 000 DO AVOOR 4	CAMBOT BE DETERMINE	CAMOOT DE DETERMINE	CAMOT BE DETERMINE	CAMOT DE DETERNINE
DIFFICULTIES REVIEW-PROPULSION STREET-AIRBORNE	TEST/MEPORT NUMBER PAILED COMPONENT NAME	GDA/AP264-050 A64-363-P-3499 BULLHEAD FITTINGS, EMBINE LON TA PRESSARIEATION	Δ			CORRECTIVE ACTION-IT HAS BEEN RECOMENDED TO CHANGE PROM BULLHEAD PITTINGS TO FLANCE PITTINGS.	604/APZ64-035/A1-401-00-243	FAILURE MOCE-ERRATIC OPCRATION. REGULATOR EINTBITED IRREGULAR OSCILLATIONS OF ABOUT 50 PSI PEAK-TO-PEAK DURING WEAN En solo phase.			. ROCKETDYNEDCES NOT CONSIDER THIS A PROBLEM.	60A/APE64-035/A1-401-00-243 THRUST CHAIGER	FAILURE MOE-CRAATIC OPCRATION. FOLLOWING STABILIZATION ON PUNF PTD OPCRATIGM, Y1 AND NE CHAMBER PRESSURES EMERIEM CED 40 PSI DROPS AND RECOVERY WITHIN 0.4 SECONDS.			CORRECTIVE ACTION-NOWE. PLIGHT IN ECONSIDERED SUCCESSFUL.	60a/Bafes-010/L3-401-00-896 186 REGLATOR	SAK. CONTROL BOTTLE PRESNURE BEGAIN	ET FIRIMS. THIS INDICATES A LEAK. EXACT TINE OF LEAK STANTISS RESULATOR.	is a leak. Exact ting of leak start	IS A LEAK. EKACT TINE OF LEAK START	IS A LEAK. CRACT TING OF LEAK START
	8787EH 84 6 -8787EH	PROPULSION-MS-4/B VERHICE	PAILURE MODE-LEAR EXTERNAL. VERNIER SOLO LI ECOMOS AFTER REPRESSURIZATION AT BECO WHICH	STATUS CPECT-MOME.	WENTOLE EFFECT-HOM.	CORRECTIVE ACTION-17 NA	PROPULSION-NAS-A/B WENTER	FAILURE HODE-ENRATIC OF	BYSTEN EFFECT-NOIC.	WAICLE EFFET-HOME.	CORRECTIVE ACTION-NOW.	Morusion-Ms-A/B Venier	FAILURE MODE-ERRATIC OF CED 40 PBI DROPS AND REC	BYBTEN EPPECT-MOME.	WHICH EFFET-HOR.	CORRECTIVE ACTION-NOIC.	PROPULSION-MS-A/S	PAILURE MODE-EXTERNAL L	ET FIRIMS. THIS INDICATE ISS RESMEATOR.	ET FIRMS. THIS INDICATE 156 RESULATOR. 6161EM CPTCCT-NOM.	ET FIRING. THIS INDICATE ISS MEMLATOR. STREEM COVECT-HOME. WHICLE EPTECT-HOME.	ET FIRING. THIS INDICATE ING MENLATOR. STREM CTTECT-MOME. WHICLE DTTECT-MOME.

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		8-3/PALC YES	NG THE CORNET		BLEED VALVE	PALC/E-3 YE	T BEOUENCE AI			ECKED.	2-3/PALC YE	NTROL FORT A' OL BOBS. OTHE PECT.	ELY 10 PERCE	ON POR CONTII	ALVE CONTROL	
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DIF DATA BOUNCE PART NUMBER		COUNTDOMN 7-23237-021	E BLEED VALVE MAS		E VICINITY OF THE	COUNTDOM	DLEED VALVE BURIN			WAS REPLACED AND THE VERHIER SYSTEM LEAK CHECKED.	7.181	ISURE AT YI LOX BL MEADING OF BLIED IDRATION.LODGE B H	CR CHAINES DROPPED	ID AT THE PROPER S	ITION OF THE B HUT	
TEST/REPORT MUSER FAILED CONFORENT MANE		22H44-002/DA1980/L3-403-00-827 F1711M53	FAILURE MODE-LEARAGE EXTERNAL IN THE VICINITY OF THE MY LOR BLEED VALVE WAS NOTED DURING THE COMMIT SEBUENCE AFTER He engine taken were pressurized.	OF 1 OFFICE.	IS DETAINED AND ALL FITTINGS IN THE VICINITY OF THE VERNIER/LOR BLEED VALVE NEAE CHECKED AND	ZZM4-002/13-402-00-827 Valve-bled	ME WAS NOTED AT THE VERHIER 1 LOP DLEED VALVE DURING THE COPHIT BENUENCE AFTER ENGINE TANKS	OF LIBUTO AUPRY.	I ABORTED AND RESCREDULED.	THE BLEED VALVE	COA63-006413-401-00-212	FAILURE MODE-FAIL DURING OPERATION, 1065 OF PREUMATIC PRESSURE AT VI LOX BLEEDVALVE CONTROL PORT AT STAGING. COMD MAYE BEEN CAUGED BY FAILURE OF SLEED VALVE CONTROL BOAS. OTHER POSSIBILITY WAS A LOOSE B MUT ON CLOSING CONTROL LINE BACKING OFF DUE TO VIBRATION.LOOSE B HUT MOST BUSPECT.	BYBIEM EFFECT-OPERATION TOO LOW. PERFORMINGE OF THE VERNIER ENGINES DROPPED APPROXIMATELY 10 PÉRCENT AND UNS MAGIN L'PROM BIBÉING TO VÉCO.	ATLAS PLACED THE AGENA AND PAYLOND AT THE PROPER SPACE POSITION FOR CONTINUATION OF	CORRECTIVE ACTION-NO ACTION ON VALVE. THE TORBUE DIRECTION OF THE B NUT TO BLEED VALVE CONTROL LINE WAS INCREAS B FROM 40-49 INCH-FOLKDS TO 70-120 INCH-FOLKDS.	
8787EH 8UG-878TEH	CORNECTIVE ACTION-NOME.	Propulsion-MS-A/B Venier	FAILURE MODE-LEARAGE EXTERNAL IN THE ENGINE TANKS NERE PRESSURIZED.	WENTER EFFECT-COANTBOAN D	CORRECTIVE ACTION-LOR MAS	Propulsion-M3-A/B Verier	PAILURE MODE-LEAR-EXTERMAL PRESSURIZATION.	BYBTEM EFFECT-DEPLETION OF	VEHICLE EFFECT-COUNTDOM A	CORRECTIVE ACTION-UNKNOWN.	PROPULSION-NAS-A/B VERNIER	FAILURE MODE-FAIL DURING ON HAVE BEEN CAUSED BY FAILURE B LOOSE B MUT ON CLOSING CO	SYSTEM EFFECT-OPERATION AL PROM STAGING TO WEGG.	WENICLE EFFECT-NONE. THE A SAIGN BY THE RECORD BYASE.	CORRECTIVE ACTION-NO ACTION ON VALVE. THE TORON OD FROM 40-43 INCH-POUNDS TO 70-120 INCH-POUNDS.	

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PROPULSTON-NAS-A/B VEHICE	BANVAN E-006 I CMI TER	COUNTDOIN	176-0	A8/UTR	47. 6		
PATLIME MODE-PAIL TO	PAILUME MODE-PAIL TO OPCRATE AT PREBERIETD TIME. THE E MERHIER EMBINE 16MITER PAILED TO FIRE.	ICA CHAINE 19417EN	ALCO TO	71R.			
STATEM EFFECT-OFERATION	STRICK EFFECT-OPERATION DOES NOT START. SHALLION STARE TIMER RAN CUT.	R RAN OUT.					
WONTELE EFFECT-COMMIDGIAN ABORTED.	OM ABORTO.						
CORRECTIVE ACTION-LARIEDAR.	HOLEN.		;	;	į		
PROPULSTON-MAS-A/B	ETR-009/14-503-E1-2E DIGINE RELAT BOX, NELAT	CAPTIVE	600304	1-4/204	YES ROCKETOYNE NO	TOYNE	• • • • • • • • • • • • • • • • • • • •
FAILURE MODE-FAIL TO OPERATE AM INTERMITTENT FAILURE IN TI	FAILURE MODE-FAIL TO OPCRATE AT PRESCRIBED TIME. VERNIER BOLD TAMES PRESSURIZED AT VERNIER START APPARENTL M INTERNITIENT FAILURE IN THE CONTROL DIODE CIRCUIT. FAILURE COULD NOT BE REPEATED DURING POST-TEST CHECA.	LO TANCE PRESSURIZES E COULD NOT BE REPE	AT VERNI	CA START 6 POST-TI	Vernica start apparently due to During port-test check.	.r DVE TO	
SYSTEM EFFECT-MOME.							
WENICLE EFFECT-NOICE.							
CORRECTIVE ACTION-GAN	SISI WAS INCOMPORATED.						
PROPULSION-MS-A/B WERLIER	ACGO-0003181-411-C9-36 INTEGRATED START SYSTEM REGULATOR	CAPTIVE	25.00 2001.21	81 /87C 236	YES ROCUETBYING NO	TOTAL	40000
FAILURE MODE-FAILED DURING IN VERMICK FEED PRESSMES	MRING OPERATION. 188 REGULATOR OVERPRESSURIZED AT INITIAL REPRESSURIZATION CAUSING AN INCREASE MARES (TENFORMAT REVERSION TO TAMP PED OPERATION).	SBURIZED AT INITIAL OPERATION .	ACPACSAUM	IZATION (SAUSTING AN	INCREASE	
BYBTEN EFFECT-OPERATION 100	OH 700 M16M.						
WENTELE EFFECT-NOICE.							
CORRECTIVE ACTION-LIBERIORIE.	NOMA.						
96162101-165-A/8	L47ND-01-711? VALVE-F7LL AND CHECK	COMPOSET TE-PRO/DPL	7117	PALCE-4	5 G		***************************************
FAILURE HODE-DURING THE CATGGENIC LEAR IT HAS FOUND THAT THE BREATAINT TORBUE	HE CATOGENIC LEAK CHECK A LEAK WAS FOUND AT THE JAMB NUT ON THE LOK TANK FILL AND CHECK VALVE. SPEAKANAT TORBUE ON THE JAMB NUT WAS BELOW TOLERANCE.	ND AT THE JAHB NUT -	2 2	TANK PE	5 97 1	CK VALVE.	
BYBICH CPECT-LOW THERMAL ENVIRONMENT.	PHAL ENVIRONMENT.						
WENTELE EPPECT-TEST AESCHEDULE.	Escutant.						
CORRECTIVE ACTION-THE VALVE	VALVE NAS REMOVED- THE BEAL REPLACED AND THE ASSENDLY REINSTALLED.	AND THE ABSENGLY RE	INSTALLED.				
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PROPULSION-MAS-A/B	OBASSIS LOH GIBCOMECT VALVE ABBY	UTP-PET RT-02240-1,-3	860333	3/3	YES REACTION NOTON S S1077EV-3107ES		••0177
FAILURE MODE-DURING THE LIFE THE -1 SECTION DECAME SEVERE MOLDING THE FLANGE	LIFE TEST SCRATCHES MERE NOTED ON THE -3 PROBE SURFACE FOLLOMING LIFE CYCLE 5. LEARAGE FROM Were after life cycle 34. The Learage was a bloming bpray of line from about 34 of the bolts	THE -3 PROBE BURFACE AGE WAS A BLOWING BP	POLLONING RAY OF LIN	LIFE CYCLE	ILE S. LEARAGE FROM DIT 14 OF THE BOLTS	F 704	
CORRECTIVE ACTION-THE FAILU OCENIC REPARATIONS MITH BARK INCHENTS AND TEST MISTORY, F	CORRECTIVE ACTION-THE FAILURE WAS ATTRIBUTED TO OVERTESTING OF THE CONTINENT IN THE LIFE TEST WHICH INCLUDES ED CAT Kenic séparations with maximum misalighment masa débiém réviems on 66-6-8 résulted in a slip map to study test résu Rédents and test mistory. Final closeout is a punction of this study.	6 OF THE COMPUNENT I VIEWS ON 86-6-8 RESU THIS STUDY.	N THE LIFE L'TED IN A	TEST NAT	ICH INCLUDES TO STUDY TE	EO CRT BT REBU	
Great From 151 on 1476	6945117 LINE A387FLEX, FUEL BIART, 3/4 I E7-E2500-603 NCH, FLANKE	UTP-PAT	1660991	3/ 9	VES 60. CONVAIR		9 0174
FAILURE MODE-THE SPECINEM LEAKED. GAE NAS 245 CC/NIN AGAINST A ZENG LEAKAGE OF THE TEST FINTURE FAILED TO PROVIDE	N LEAKED. GHE AT THE TORUBEAL END MITH THE MAX ALLOMBLE TORGUE OF 840 INVLBS. LEAKAGE RATE. ZERO LEAKAGE SPEC. A TOTAL OF EIGHT ATTEMPTS DIPLOTING A MEN TORUBEAL EACH TIME AND RENCHAED TO PROVIDE THE REGUIRED ZERO LEAKAGE.	HITH THE MAX ALLOMB AT ATTEMPTS EMLOTIN MAGE.	LE TORBUE 6 A MEN TO	OF 840 II	VLBB. LEAKA IOH TINE AND	ME MATE	
CORRECTIVE ACTION-UNIT UNS	AS REJECTED DUE TO A DEFECTIVE PLANKE NO PURTHER ACTION IS PLANEED.	HEE NO PURTHER ACTEO	H 18 PLAIS	á			
PROFILE ON-MS-A/P	974-3-46-18 BOTTLE-CONTROL	PLIGHT	7116	PALCE-4	3/99 QH		11900
FAILURE MODE-CONTROL BOTTUL	TLE PRESSURE EXHIBITED AN ABNORMALLY HIGH DECAY RATE PROM JETTIBON ON DUE TO A LEAK DOMNSTR	LY HIGH DECAY RATE P	NON JETT11	8 8	: TO A LEAK	DOMESTR.	
SYNTEN EFFECT-DEPLETION OF	OF CONTROL BOTTLE PRESSURE.						
WHICLE CPTCT-PREMIUR VENIER ENGINE BHUTDOM.	VERNIER ENGINE BAUTDOLD.						
CORRECTIVE ACTION-MARDIANE	RE AND BINULATION STUDIES AND IN PROGRESS.	NOGREBB.					
Propulsion-NAS-A/B Scheral	874-8-64-16 7481ME-DUCTINE	A.COST	7116	PALC2-4	YES NAA NO		
FAILURE MODE-CONTROL BOTTLL ME BUBTAL BUSTALLER PHASE AND THE SWAPLET.	tle presbure eimibited am abnormally high decay rate from jettisch cm. Dae latter part of t e wemzer phase mere therepore abnormal. Learage in the booster fuel bootstrap plunding is	LY MICH DECAY RATE F DRIAL. LEAKAGE IN TH	ROH JET7118 E BOOBTER	04 04. T	E LATTER PA	8-	
BYBYEN CFFECT-DEPLETION OF	OF CONTROL BOTTLE PRESSURE AND LOSS OF DEPENDANT FUNCTIONS.	S OF DEPENDANT PUNCT	1088.				
WHICH EPPET-PREMIUM W	VENIER EMINE BOUTDOM.						
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SHAFFER SHAFFER STATES AND THE WARDE DUTING THE STATES OF SHAFFER SHAF	IVE ACTION-MARO	MARE AND SIMULATION STUDICS AND IN P	tosaess.				217000
CHAINCE CENTRALE LEGACE AROUND THE WARDEL DUBLIS VIBRATION TESTS ON 64-15 AND 64-1-4 AND 67-1-4 AND	F-144 3-4.78	6944744 VALVE	UTP-PET 27-02291-7	j		. D. H. MADLET 10713-7	£ :
ANTE PROD 0.1 SCYNIN TO 5 CCYNIN. ANTER CREATION. THE 12st RECULATOR DID NOT RECOVER PROPERLY AFTER PRESSUREZATION AND VENTING OF STAN DECAYED TO 500 PSI. BATIC OPERATION. DOE: BATIC OPERATION. BATIC OPERATION. CHARGES OF CUR NI WAS REPLACED. CHARGES OF CUR NI WAS APPLIED TO BRIDGE WITE A-D. THE SAULE FIRED AND THE VALVE OFFICE HOUSE TO CONTAMINANTS. PARTICLES, APPROVED TO ALAMINEMATA APPROXICE CONTINUED THROUGH THE CIRCUIT. PRELIMINANT EXAMINATION OF CONTAMINANTS AND ALAMINANT APPROXICE STATE AND ANTER ADADO ON THE SAMILE NAMED AND SIZE OF THE PARTICLES. APPR EXCESSIONED TO BE STATE AND APPLIED TO BRIDGE WITE AND ANTER AND APPLIED TO BE STANDED TO BE STA	E MODE-ENCESSIVE BOOD CC/MIN OF ED AT A RATE OF UNEED IN ALL TEST		DURING VIBRATION TES N SPEC THE REMORKED D RETEST ON 66-4-18	15 OK 66-5-5 SPECIMEN NAS RESULTED IN	AND 44-3 RETESTED A 2480 CC	-4. LEAKAGE RATE On 1 APRIL 66 A /Him rate 126 P6	
A1-40-01-303 A2-400-01-303 A11C CMCLATION. THE 133 REGULATED BIO BOD BOD PSI. AATIC CMCLATION. THE 134 REGULATED BIO BOD PSI. BATIC CMCLATOR WAS REPLACED. AATIC CMCLATOR WAS REPLACED. BOD PSI. BOD PSI. BOD PSI. WHO CAND TO 515 PSI AND THOM SITPPED TO GOD PSI. BOD PSI. BOD PSI. BOD PSI. WHO CAND TO 515 PSI AND THOM SITPPED TO GOD PSI. BOD PSI. BOD PS	TIVE ACTION-LOT	710-1 MAS REJECTED A MORE REALISTIC POR D.1 CC/HIN TO S CC/HIN.	EXTERNAL LEAKAGE RAT	E SPEC VAS 1	METIATED	MICH CHANGED TH	
NATIC OPERATION. THE 138 RESULATOR DIO NOT RECOVER PROPERLY AFTER PRESSUREZATION AND VENTING OF STAR DECAYED TO 533 PRI AND THEN STEPRED TO 600 PSI. BATIC OPERATION. ONE. BATIC OPERATION AND THE THEORY OF THE SAULE PRED AND THE VALVE OPENED HONEYER C PRODICED IN CANADATES. ALMINIMA APPRIOR O.E. IN LÓME. ALMINIMA APPRIOR O.E. IN LÓME. SATA-8-6-18 THEE TEST SAFELINED THROUGH THE CIRCUIT. PRELIMINATY EXAMINATION OF CONTAMINANTS SHOW ALMINIMA TO PRATICLE SIZE. SATA-8-6-18 THE SAME THE EMBLIN WHICH AND SIZE OF THE PARTICLE. SPECE ET-12048 WAS REVISED TO RE SATEL LAND ON THE SAULE WASHER AND SATEL THE MAIN THE THROUGH THE TABLE TEST MAINTING THE TABLE TO RESULT ON PARTICLE SIZE. SATA-8-6-18 THE EMBLIN ON THE EMBLIN THE PRESBURIZING LINE PAILED TO CLOSE AT EMBLIE TABLE BATE THAN MENN. SALATION CHECK VALVE IN THE EMBLINE LOS TABLE MAINTING TO CLOSE AT EMBLIE TABLE BATE. FRANCE OF THE PARTICLE SIZE. SATA-8-6-19 THE SAME LOS TABLE MEDBBURIZING LINE PAILED TO CLOSE AT EMBLIE TABLE BATE.	OH-1445-4/B	A1-440-01-308 RE44LA70R-4A8	COMPOST TE-PRO/DPL		AEBA-1 YE		****
E RECULATOR MAS REPLACED. SAMASI ESPLOSIVE VALVE UTP-GALL/PPT GAGEZE GD/C TES PTRONETICS 1182-1	RE MODE-EARATIC O	PERATION. THE 188 REGULATOR DID MOT- ED TO 575 PSI AND THEN STEPPED TO 60	RECOVER PROPERLY AFT 0 PSI.	CR PRESEURIZ	ATION AND	WENTING OF BTAR	
FOR REGULATOR WAS REPLACED. SHARAS STATES OF CUT. IN LAS APPLIED TO BRIDGE WIRE A-D. THE SAULE FIRED AND THE VALVE OFFICED HOLEVER C PROXIMATELY S.S. AN-STEED CONTINUED THROUGH THE CIRCUIT. PRELIMINARY EXAMINATION OF CONTAMINANTS SHOW ALMINAM APPROX O.E. IN LONG. ALMINAM APPROX O.E. IN LONG. MICH ACCEPTABLE BARED ON THE SAULE WINGER AND SIZE OF THE MATTICLES. SHEE E-1804G HAS REVISED TO BE 1817E LIMIT OF PARTICLES. SHEE E-1804G HAS REVISED TO BE 1817E LIMIT OF PARTICLES. SHEE E-1804G HAS REVISED TO BE 1817E LIMIT OF PARTICLES. SHEE E-1804G HAS REVISED TO BE 1817E—1617E LIMIT OF PARTICLES. SHEE THAN BEEN HAS BEEN	FFECT-GREATIC	operation.					
EXPLOSIVE VALVE FOR MIT AND APPLIED TO DRIDGE VARE A-D. THE SAUIS FIRED AND THE VALVE OPENED HONEVER C ALUMINAM APPROX D.E IN LÓNG. FOR ACCEPTABLE BASED ON THE SAULL MANGER AND BIZE OF THE PARTICLES. SPECE 27-20-96 MAS REVISED TO RE STA-S-80-16 VALVE-CARGER VALVE-CA	TIVE ACTION-THE	REGULATOR MIS REPLACED.		:			
FAURTHEL OF CUR INT MAR APPLIED TO DRIDGE WIRE A-D. THE SAUIS FIRED AND THE VALVE OFFIED HOREVER C PROXIMITELY S.S A.MCDES CONTINUED THROUGH THE CIRCUIT. PRELIMINARY EXAMINATION OF CONTAMINANTS SHOW ALMINANTS SHOW OF CONTAMINANTS PARTICLES. SHOW CONTAMINANTS. PARTICLES. SHOW EVERNINGD THAT T CHT ACCEPTABLE BASED ON THE SHALL MUNDER AND SIZE OF THE PARTICLES. SHOW 27-12084 MAR REVISED TO RE 1874-18-18-18. STA-18-416 WALNE-CHECK STA-18-416 WALNE-CHECK STA-18-416 INCLATION CHECK VALWE IN THE EMBINE LOK TANK PRESSUREZING LINE FAILED TO CLOSE AT EMBINE TANK REPRESENTED.	CN-1443-A/B		CIP-QUACPPT 27-0295-3			8 P7ACHE73C8 110E-1	94 TO
SHEET THEE TEST SPECIFIEDS WERE CHECKED FOR CONTANIMANTS. PARTICLES, SHEET ENTERED THAT TO THE SHALL MANDER AND SIZE OF THE PARTICLES, SHEET ET-12054 WAS REVISED TO RESIDENT ON PARTICLE SIZE. STA-5-54-16 VALUE-CHECK SHA-5-54-16 NALVE-CHECK SHOLATION CHECK VALUE IN THE ENGINE LOK TANK PRESSURIZING LINE PAILED TO CLOSE AT EMBINE TANK REPR	E HODE-FIVE AUPE FLOW OF APPROXIM VATICLE OF ALUMI	RES OF CURT NT MAS APPLIED TO BRIDGE MTELY 5.5 ANYORES CONTINUED THROUGH MAN APPROX 0.2 IN LÓNG,	WRE A-D. THE 36UIB THE CIRCUIT, PRELIMI	FIRED AND T	HE VALVE	OPENED HONEVER C CHIANIMANIA BHOM	
STA-9-44-16 VALVE-CAECA VALVE	TIVE ACTION-ON B. NE ALE PLIGHT AC 1 MONE REALIBITE	-2-29 THREE TEAT APPECIMENA WERE CHEC CEPTABLE BASED ON THE BHALL NUMBER A LIMIT ON PARTICLE 012E,	AED FOR CONTANINANTS ND BIZE OF THE PARTI	. PARTICAL A CLES. SPEC E	MALTO18 D P-12008 W	ETERNINED THAT T AB REVISED TO RE	
-THE ISCLATION CARCE VALVE IN THE ENGINE LOS TANK PRESSURIZING LINE PAILED TO CLOSE AT ENGINE TANK REPR	GE-1449-A/19	974-5-46-16 VALWE-CHECK	Limi	9		7	
STORY TO STORY THE STORY T			14K PRESSURIZING LIN	FAILED TO	CLOSE A1	DINING TAIM NEPA	
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WE. The is a seretific frequent. See Mai-144 was schooled for may voicide which counsely lock, valve from Hussel to Texton. Bast was reconstructed and voicides which counsely lock, valve from Hussel to Texton. Bast was reconstructed to the start take. See 1-000 Converted to the counsely lock. But the portion of the start take. See 1-000 Converted to the counsely like the start take. See 1-000 Converted to the counsely like the start take. See 1-000 Converted to the counsely like the start take start take the start take start take the start take	37.87EN 3UB-37.97EN	TESTAREPORT MUMBER FALLED COMPORENT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIP	817E 713E D1F	PRI VENDOR IN	Ä -	
ORE. PHORIES IS A REPETITIVE PROBLEM. ECP MAS-148 MAS GENERATED FOR BLY WONCLES MATCH. PROBLEMENT TO VETICAL. BAT AND RECOMMENCES EXTENSIVE EXPLANCES. THAN-PLUED THAN-PLUED THAN LEAR. A LOS LEAN OCCURRED AT THE BOTTON OF THE START THAN. BY THAN-PLUED THAN SECULATED. DELAY IN THE DOTTON OF THE START THAN. BY THAN-PLUED THAN SECULATED. DELAY IN THE DOTTON OF THE START THAN. BY THAN-PLUED THAN SECULATION WAS ARRESTED. BY THAN-PLUED THAN SECULATION WAS ARRESTED. THAN SECULATION WAS ARRESTED. BY THAN SECULATION. BY THAN SECULATION WAS ARRESTED. BY THAN SECULATION. BY THAN SECUL	SVSTEN EFFECT-NOME.							*****
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OWIDOWS DELAYD. DELAY IN THE DPL.	SYSTEN EFFECT-LON THERMA							
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PACALE OFERATION WAS ABRIDOUL. IRREGLIANTIES INCLUDED FAILURE TO WORT THE START TAMES UPON COMMA ANTIC CPETATION. 16 JAL WAS RESOCIDABLE. 17 JAL WAS RESOCIDABLE. 17 JAL WAS RESOCIDABLE. 18 JAL WAS RESOCIDABLE. 18 JAL WAS RESOCIDABLE. 19 JAL WAS VEREZIMA. 10 JAL WAS RESOCIDABLE. 10 JAL WAS VEREZIMA. 10 JA	JPULS1ON-NAS-A/B CRAL	PE-78H-02-5001 IBS PACIAGE	CO40061 TE-P10 /0PL	\$001 \$60£09	CTRIE	TE NA		1960967
HE THE ISS PACKAGE HAS RECHRISED TO THE VENOOR FOR FAILURE ANALYSIS. HE THE ISS PACKAGE HAS RECHRED TO THE VENOOR FOR FAILURE ANALYSIS. BE-440-02-41 LOR START TANK-FILL AND DRAIN VALV E SEAL K EXTERNAL. LOR START TANK FILL AND DRAIN VALVE BEAL LEAKED-CAUSING LOW DIGING COMPANYMENT TEMPERAT ME. DIE. H-SCAL REPLACED ON LON START TANK FILL AND OWECK VALVE.	AILURE MODE-135 PACKAGE 3. IT WAS BELIEVED THAT	E OPERATION WB ABNODML. IRREGULARI THE FAILURE WAS DUE TO PHEEZING.	TIEB INCLUDED FAILV	FIE TO VEH	THE STA	IT TANKS UPON	tient Coert	
HE THE 188 PACKACE WAS RESCHEDULED. HE THE 188 PACKACE WAS RESCHEDULED. BE-440-02-41 LOK START TANK-FILL AND DRAIN VALVE SEAL LEAKED-CAUGING LOM ENGINE COMMATHENT TENEGRAT K ENTERNAL. LOK START TANK FILL AND DRAIN VALVE SEAL LEAKED-CAUGING LOM ENGINE COMMATHENT TENEGRAT ME. DIE. H-5211 REPLACED ON LOK START TANK FILL AND OMECK VALVE.	VSTEM EFFECT-ERRATIC CO	EMATION.						
RE-AND-DE-41 LOST START TANK-FILL AND DRAIN VALVE SEAL LEAKED-CAUGING LOM ENGINE COMPANIENT TEARCHETOTHE K EXTERNAL. LOST START TANK FILL AND DRAIN VALVE SEAL LEAKED-CAUGING LOM ENGINE COMPANIENT TEMPERALT ME. DOME. 1-3221 REPLACED ON LOST START TANK FILL AND OMECK VALVE.	EMICUE EFFECT-THE JAL N							
DE-AND-DE-41 LOW START TANK-FILL AND DRAIN VALV SETERNAL. LOW START TANK FILL AND DRAIN VALVE BEAL LEAKED-CAUSING LOW ENGINE COMPANYENT TEMPERAT WE. 1-36A1 REALACED ON LOW START TANK FILL AND OWECK VALVE. 1-36A1 REALACED ON LOW START TANK FILL AND OWECK VALVE.	CORRECTIVE ACTION- THE B		TO THE VENDOR FOR	FAILURE AN	ALYBIB.			
LURE MODE-LEAR ENTERNAL. LOR START TANK FILL AND DRAIN VALVE BEAL LEAKED-CAUGING LOM ENGINE COMPARTMENT TEMPERAT THE EFFECT-MOME. MECTIVE ACTION-SEAL REPLACED ON LOR START TANK FILL AND CHECK VALVE. [PAGE 0148]	PULSION-MAS-A/B	DE-AND-OE-61 LOW START TANK-FILL AND DRAIN VALV E SEAL		910 690618	DE /VTR	YES ROCKETDYN HO		00 20 40
LACES ON LOS START TANK FILL AND OMECK VALVE.	failure Mode-Leak extern Ne.	wl. Lok btant takk fill and draim v	NLVE BEAL LEAKED-CA	41 K CO	Deine a	MARTHEM TEN	Į.	
ACTS ON LOS START TANK FILL AND OMECK VALVE.	ITATEM EFFECT-NOME.							
ACES ON LOST START FILL AND OMECR VALVE.	MENICLE EFFECT-NONE.							
	CORRECTIVE ACTION-SEAL R	EPLACED ON LOK START TANK FILL AND	DIECK VALVE.					
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VEHICLE BITE PRI VENDOR MANE	340/£78 NO -2 NO	MENATED SECAUSE GANTAY TEST NA OF CINCUIT.			A-1/VIR YES CONVAIR 139 HO	ON TANK PRESSURE ROSE TO PREUN THIS RISE HORMALT OCCURS WI H FITTING O-RING.				60/C YES THICKOL NO SEOTEE	ARD SECTION HYDROSTATICALLY LE THE PRESSURE SUPPLY RATE. DESI 8 CC PER MINUTE AT 12D PSIG. T IN-LBS. REF S/N 4016ES T. N. N		60/C YES THICKOL NO SIOTEE/SIOTES	NAMED AND MISALIGNED TEST SPE ER MINUTE AND 1.36 CU-IN PER N 1710MS OBTAINED 0.075 CU-IN PE
	1810	FF 448 GE			2110 850227	DIGINE LA HOS LATER ISURIZATION				480127	THE FORM EXCEDED 1 15 AND 30 OF 23-80		621019	ED) THE ED 4 CU-1N PI SAME COSDI
DIF DATA SOURCE	COMPOSTIE-J FACT	BTAGE LINITER CUTO 4D E) PREVENTING CO			P.1647	BBURIZATION (BECO) . BURE, UNTIL ES SECO WEINE LON TANK PRES				UTP-PET 27-02248-1	WILE PRESSURIZING F THE LEARGE RATE ER MINUTE AT 100 PS F TO ACTUAL TORGUE		UTP-PET ET-02840-1/-B	LIPE CYCLE 19 (OF PBIS 6ME LEAKED 1.1
TEST/REPORT HUMBER FALLED COMPONENT NAME	F148378/P48-CO-08-04C6 COMECTON	OPERATE AT PRENCRIBED TIME. IGNITION STAGE LIMITER CUTOFF HAS GENERATED BECAUSE GANTAY TEST RA Nere reversed (866 Igniters no. 1 and 2) freventing completion of circuit.	I DELATO.	INSTALLED CORRECTLY.	60/C-8KF65-009/A1-401-00-211 FITING O-RING	FAILURE HODE-OUT OF EMPECTED VALUE, AT EMAINE TANKS REPRESSURIZATION (BECO). EMAINE LOK TANK PRESSURE ROSE TO PMEUN ATTC REGULATOR, PRESSURE DID NOT REACH PUMP DISCAMRGE PRESSURE, UNTIL ES SECONDS LATES. THIS RISE NORMALT OCCURS WI THIN IS SECONDS. BELIEVED DUE TO HELIUM LEARAGE PAST THE EMGINE LOK TANK PRESSURIZATION FITTING O-RING.			DA. REPLACED WITH FLANGE TYPE FITTINGS.	GPADAS LON STAGING DIRCOMECT VALVE	FAILURE MODE-LEAK-EXTERNAL DURING PET BURST PRESSURE TEDT WHILE PRESSURIZING THE FORWARD SECTION HYDROSTATICALLY LE AKAGE STATED FROM THE STATIC SEAL AT 150 PSIG. BY ELO PBIS THE LEAKAGE RATE ENCEDDED THE PRESSURE SUPPLY RATE. DESI GE BOURST PRESSURE IS 222 PSIG. LEAKAGE RATED MERE' BO CC PER MIMUTE AT 100 PSIG. THE STATIC SEAL BOLTS MAD RELAKED TORBUE FROM 120-130 IN-LBS TO ACTUAL TORBUE OF 25-80 IM-LBS. REF SAM 4018ES T. M. M.	REF CTCTH NO SEE-4-017.	66A4048 LON STAGING DISCONDECT VALVE	WECIFICATION ON TOLERANCE DURING PET LIPE CYCLE 19 (OF ED) THE ENGAGED AND MIDALIGHED TEST APE: PRESSURIZED TO 50 PSIS GHE AND 117 PSIS GHE LEAKED 1.14 CU-IN PER MINUTE AND 1.30 CU-IN PER MINUTE LIME, LATER VERIFICATION TESTING UNDER BANE CONDITIONS OSTAINED D.075 CU-IN PER MINUTE, REF 401-685/40*127 T. M. NO 1.
3151E# 846-8191E#	PROPULSTON-NAS-A/B GENERAL	FAILURE MODE-FAIL TO COM CK PLUES PEOS AND PEOS NE	VENICLE EFFECT-COMPOSITE DELAYED.	CORRECTIVE ACTION-PLUGS INSTALLED CORRECTLY.	PROPULSTON-MS-A/B GENERAL	FAILURE HODE-OUT OF EMP ATIC REGULATOR, PRESSURE THIN 15 SECONDS. BELIEVER	SYSTEM EFFECT-NONE.	WENTCLE EFFECT-NOME.	CORRECTIVE ACTION-OFEN.	PROPULS I CH-HAS-A/B CENERAL	FAILURE MOE-LEAK-EXTER ALAGE STARTED FROM THE BI GN BURBT PRESSURE IB 222 ME BTATIC BEAL BOLTB MAD OE.	CORRECTIVE ACTION-NOME. REF CTCTH NO 662-6-017.	PROPULSION-NAS-A/B GREAAL	FAILURE MODE-OUT OF BFEC CIMEN, FILLED WITH LUB PN INDUE, ALLOMBLE ID I CH- R MINUTE AND 1.70 CU-IN P

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201 107 01	DIFFICULTIES REVIEW-PROPULATON AVAILEM-AIRBORNE	PULBION SYSTEM-AIRBOR	¥				c
3191EH 318-313EH	FAILED COMPONENT NAME	DIF DAYA SOURCE PART NUMBER	VEHICLE DATE DIF	BITE TIME DIF	910	VENDOR NAME	
CURRECTIVE ACTION-NOME.	NET. CTCTM NO USE-6-014						06 304 9
PROPULSION-NAS-A/B GUEFAL	604-48284-088/A1-402-00-E10 135 PMEUMATIC REGULATOR	7.181	102179 641801	A1 /MR	28	YES ROCKETOVNE	:
FAILURE MODE-ERRATIC OF	FAILURE MODE-ERRATIC OPERATION. IRREGULAR OBCILLATIONS WITH MACHITUDE OF ABOUT 30 PSI PEAR-TO PEAR NERE EIMIBITED B Y THE 135 PREUMATIC REGULATOR OUTLET PRESSURE DURING VERMIER BOLO PHANE.	TH MACHITUDE OF ABOUT ER 100.0 PHAME.	20 00	ZAK-70 PE	9 75	EWIDING D	
STATEM EFFECT-MOME.							
WONTCLE EFFECT-NOIC.							
CORRECTIVE ACTION-NOME.	ROCKETSYNEDGES NOT CONSIDER THIS A PROBLEM.	A PROBLEM.					
PROPULSTON-249-A/B SENERAL	A3-AHO-01-300 VALWE-CHECK	COMPOST TE-P10/DPL	3000	A-5.00R	ភ្នំ ខ្		
FAILURE MOE-FAIL DURING	FAILURE HODE-FAIL DURING OPERATION. ABHORNAL START SYSTEM PERFORMANCE AFTER START TANKS MEME WENTED.	PERFORMANCE AFTER 81	ART TANKS	WEAE WO	ē		
SYSTEM EFFECT-ERRATIC OF	PERATION.						
VEHICLE EFFECT-NOIC.							
CORRECTIVE ACTION-INVEST	ITICATION REVEALED THE LOK VERT PORT CHECK VALVE WAS NOT INSTALLED ON 185 PAG BUT RATHER A PL	IT CHECK VALVE LAB NO	INSTALLE	SG 188	35	JT RATHER A PL	1
PIOPULSION-MS-A/B GERAL	GOALDGT.3 LON STAGING DISCONECT VALVE	UTP-PR T 87-02848-1/-3	640003	y 3	ž 2	VES THIORCA. NO SIOTEET/SIOTES V	1
FAILURE MODE-OUT OF SPEC HSAGED AND ALIGHED AND FI UTE. ALLOMBLE IS 11,432	COPPLEATION OR VINE	PECIAL PRY POST VIGE PSIG, THE ENGAGEMENT REF B/N GOB-GOLF/30	1710N PROD SEAL LEAK 1-1106 7.	MOOF CYCLE LEAKAGE WAS 17. N. NO.3	45000	MTH TEST SPECIMEN E 12000 CC GME PER HIN	
CORRECTIVE ACTION-NOIC.	MET. RITH FOR ME F-4335 ST AND FIRE NO FRESA-E-367	18 NO FR654-8-367					
MOPULES OF-HAS-A/B GENERAL	6541947.3 LOC STAGING DISCONECT VALVE	UTP-PRT 87-02248-1/-3	1 401	3	ភ្នំខ្	TH [OKOL 910722 T/ \$1072 9 V	
FAILURE MODE-OUT OF BPEC ALIBRID AND FILLED METH MOTE. ALIDRADAE IN 1-8 M ATTEM CHIPPED OF FORMAND	ICIFICATION OR TOLERANCE DURING PR? PORT YIGHATION PROOF CYCLE WITH TEST SPECIMEN ENGLESS AND ILLE PRESSURIZED TO 117 PGES, THE DIRACDENT SEAL LEAKAGE THE BES. ICUBIC INCHES OF LINE PER NI KEIN, AN EXAMINATION OF THE YALVE REVALLED A ROUGH AREA ON THE REL-F LIP SEAL AND EMERALON CO. SECTION BUE TO PROOF SOTTOMING, RET S/N 808-0017/384-1166 T. H. HOE.	FOAT VISIATION FROD DMAGDENT SEAL LEAK EVEALED A BOUGH AREA MF SAN 808-8617/1864-	CYCLE W 166 150 6. 18 776 85 1106 7. H.	4074 7837 8-1 CUBIC AGL-P LIP H. MOR.	PECTA HICHES MAL A	PROOF CYCLE WITH TEST SPECIMEN ENGAGED AND LEGALAGE LASS E.S. CUBYC SHOWES OF LIVE PER WI AREA (N) THE REL-F LIP SEAL AND ENERALON CO 1984-1186 T. H. HOR.	·
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							51.004.0
COPPECTIVE ACTION-INSTALL	J. HEN O-RING, CLEAN PROBE AND BEAL ABEA, AND MENUN PROOF CYCLE, MEF. NTFN FFR HA F-4555 ST	ACA, AID REPUR PRO	or crass.	MCF. NTP	FPR ne F-435!	•	
PROPERTY OF THIS - A.P.	GOVANITA-OE3 7/4-TOE-00-TIGH ALL ENGINE THRUST OMNOGRA: TINEST	فقو	7101	OH 04-4-4-8	9 9		*3****
FAILURE HODE - CONTARTHANTION, POST YEST INSPEC FYER ALL DIGINES CUTOFF, INVESTIGATION PENEALDS RI). AS A RESULT ALL ENGINES NEWE CONTARDINDO.	FAILUME MODE - CONTANTMATION, FOST 1237 INDMECTION MEYEALED THAT THE EMGINE PURCE SYSTEM DID NOT OPERATE PROPERLY A FTER ALL ENGINES CUTOFF, INVESTIGATION PENEALED THAT MODILEM WAS CAUMED BY A FAILTY START FAILUME DELAY TIMEN CEDAS RIJ. AS A MESALT ALL EMGINES NERE CONTAMINATED.	THAT THE EDIGINE PA	RCE SYSTEM	FAILURE	OPERATE PROPEJ DELAY TINER U	CILY A CROAN	
ASIM PRIOR TO PLICHT.	BYSTEY EFFECT-CONTAINING MAI, THRUST CHANGER INJECTOR NAMERCLDS NEAE CONTAINING AND REGUINED INDICAL AND DEGRE SING PRICE TO FLIGHT.	HPOLDS NENE CONTAI	11 M TO AM	RCeutach	REPORAL AND O	ž	
WOIGE EFFECT-NOR. DEL	WHICLE EFFECT-WORE, BELAY IN LAUNCH WOLLD HAVE OCCURRED IF PAYLOND HAD BEEN READY.	PATICAL NAD BEEN A	Coor.				
CORRECTIVE ACTION-TINEX	CORRECTIVE ACTION-TIFER WAS REPLACED AND CHECKED OUT BATISPACTORILY.	CTORILY.					
FROTESION-NS-A/8 GDERA	A1-410-03-243	CONFOST TE-FIELDER.	2430 0573	A-1.AMR	TES ROCIETOTHE HO		20704
FAILURE MODE-OUT OF TOLE	FAILURE HODE-OUT OF TOLERANCE. 135 REGULATOR OUTPUT OUT OF TOLERANCE.	OLEDAKCE.					
SYSTEM EFFECT-START STRIED PRESSURE LOM.	The Pressure Lon.						
WEATER EFFET-HOME.							
CORPECTIVE ACTION-188 RESULATOR REPLACED.	CHALATOR MERLACED.						
MOTUSION-MS-A/S (C)CSAL	A1-440-02-643 REVALATOR	COSTOS I TE-FREVER.	609079 0873	A-1 ANR	5 9		00000
FAILURE MODE-OUT OF SPEC TOUS DPL.	PAILLINE HODE-OUT OF SPECIFICATION. 185 NEGLATOR RECOVERT TINE AT START TANK PRESSURIZE INCREASED FROM THAT ON PREV OUS DPL.	ME AT START TANK P	32 1 W 8 8 3 8	INCREABE	FROM THAT CH	È	
SYSTEM EFFECT-OPENATION TOO LON.	TOD LOM.						
World Directions.							
CORRECTIVE ACTION-188 RESULATOR REPLACED.	SULATOR ACPLACED.						
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37.51EH 31 6 -3737EH	TEST/REPORT NUMBER FAILED CONFORGNT NAME	DIF DATA BOUNCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIP	VEHICLE SITE PRI VENDOR NAME DATE DIF TIME DIF OTH VENDOR PART NO	
PROPULSION-NAS-A/B GENERAL	DAICIO/L3-4M0-05-331 REGULATOR, INTERNATED BIART BYBTEN	CONTOOL TE-PRD/DPL	3510 6404 2 0	2-3/PALC VES	OH	
PAILURE HODE-OUT OF EXPE	EXPECTED TEST VALUE. REGULATOR DISPLATED UNUSUAL TRANSIENTS AT ENGINE TANKS PRESSURIZATION.	UNUBUAL TRANSIENT	AT (2061)	E TANKS P	RESSURIZATION.	
STATCH EFFECT-EMATTE OPERATION.	CATION.					
WAICLE EFECT-HOME.						
CORRECTIVE ACTION-REGULA	ATTULATOR REPLACED.					
PROPULATOR-MAS-A/B GENERAL	60463-1374/41-401-00-235 135 REULATOR	PLICHT	612169 631216	A-1/MR 276	YES MOCKETOYNE NO	3
FAILURE WODE-ERRATIC OPEI	FAILURE WODE-ERRATIC OPERATION. COCILLATIONS WITH A MAXEMUM PEAK-TO-PEAK AMPLITUDE OF 130 PSID MERE INDICATED ON TH E 155 REGULATOR DISCUARGE PRESSURE DURING VERNIER SOLD PHASE. THE CAUSE 18 LARKNOW.	PEAK-TO-PEAK AMPLIT THE CAUSE IS UNKN	TUDE OF ST	3	HE INDICATED ON T	
WENICLE EFFECT-NOME.						
CORRECTIVE ACTION-ND COR	HO CORRECTIVE ACTION TAKEN.					
PROPULSTON-1445-A/B GRERAL	F746£34/PE-4CO-DE-263	CONFOSTIE-J FACT	2430 6304£7	1e/ETA 0	2 2	•
FAILURE MODE-PAIL TO OPE LEASE CUTOFF BISARMS FER	FAILURE MOCFFAIL TO OPDRATE AT PRESCRIBED TINE, EA PEN SI (MIN ENGINES COMPLETE) ACTIVATED AFTER EA PEN SE (PRE RE LEANE CUTOFF BISARM), PEN SI BHOULD ACTIVATE PRIOR TO PEN SE, PROPER ACTIVATION OF PEN NE WAITPIED.	AIN ENGINES CONFLETON	ACTIVE P PER P	ACTIVATED AFTER EA P	CA PEC SE CALE A	
SYSTEM EFFECT-NOME.						
WAICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
PROPULSTON-NUS-A/B GORTAL	PS-4CO-04-187 ENGINE RELAY BON, RELAY K17	COSTOBITE-J FACT	1870	13/ETB	VES NO	192500
FAILURE MODE-OUT OF TOLES	TOLERANCE. BELAT BELIEVED EXCERSIVE.					
BESTEW EFFECT-OPERATION	STREEM EFFECT-OPERATION TOO LONG. TIMER SETTING IS BELIEVED TO BE ENCESSIVE AT APPROX D.S. SEC.	TO BE EXCESSIVE AT	APPRON D.	. MC.		
WENTELE EFFECT-NOIC.						
CORRECTIVE ACTION-INVESTI	INVESTIGATING TO PETERNINE PROPER TIME DELAY.	AV.		:		
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DIFFICULTIES REVIEW-PROPULSION SYSTEM-AIRBORNE

WERRAL WERLAL WERLA WERE WERLA WERLA WERLA WERLA WERLA WERLA WERLA WERLA WERLA	REFLACATOR TORE OPERATION: 138 PREMATIC REGLATOR DISCHARGE PRESS. DROPPED FROM 575 PSIG AT 158 SECONDS TO OPERATION: 138 PREMATIC REGLATOR DISCHARGE PRESS. DROPPED FROM 575 PSIG AT 158 SECONDS TO NELLUM SUPPLY LING FAILED BETWEEN THE 138 REG AND THE FIRST COMSTANT FLOM CONTROL CHECK VACCES AND VISHATION EDVIRONMENT AFTER 8005TER CUTOTY. F. CAS SUPPLY, LOSS OF SUST. CONTROLS BOTTLE PRESS. BY 257 SECONDS. THE PRESSURE MAS ZERO. MICLE STABILITY. HISSILE BELF DESTRUCTED AFTER 848 SECONDS AND TANK SECTION INFACTED AFPROAGE. AKES-COOD-EDOD/FC-CO-01-0713-009 CONFOSITE-FACTORY EDOD FACTORY YES ROCKETDINE BENINE FILLY BOX ANKE. BEASUREDEN: 3374X INDICATED 3 PERCENT 1944 DURING ACTIVATION OF TONE CHAMBELS 1 AND 5 RLTY EMEINE FILLY BAY BAY PROBLEM.	1930 A-1. 630316 136 COPED FROM 31 FIRST CONSTANT EST ACCOMDS. COMDS AND TANK COMDS FACT COMDS AND TANK COMDS A	A-1/478 M 158 M 158 P316 37ANT PLOM 58 TAK PR 7ACTORY T	MO 6 AT 156 BECONDS T M CONTROL CHECK VA RESSURE WAS ZERO. 104 14PACTED APPRO	
FAILURE MODE-FAIL DURING OPERATION: 138 PREMATIC R O 69 P315 AT 248 SECONDS. MELIUR SUPPLY LINE FAILED LVE 118 PU 3YSTEN DUE TO SHOCK AND VIBRATION BUNINGS NYSTEN EFFECT-CORLETION OF 643 SUPPLY. LOSS OF 348T WENTLE EFFECT-COSS OF VENTCLE STABILITY. HISBILE S KINATELY 300 MUTICAL HILES DOMBNAME. CORRECTIVE ACTION-NOME. FAILURE MODE-OUT OF TOLERANCE. MEASUREPEN: 3374X IN AT 479 SECONDS DUE TO FAILTY ENGINE RELAY BUN SECON WENICLE EFFECT-COPERATION TOO LONG. PUBSIBLY NO SECON WENICLE EFFECT-COPERATION TOO LONG. PUBSIBLY BOX. COPRECTIVE ACTION-REPLACED FAILTY ENGINE RELAY BOX. PROPULSION-MS-A/B ENGINE RELAY BOX. PROPULSION-MS-A/B ENGINE RELAY BOX. PROPULSION-MS-A/B ENGINE RELAY BOX. PROPULSION-MS-A/B ENGINE RELAY BOX.	CULATOR DISCHANCE PRESS. DA ETHEEN THE 188 REG AND THE NI AFTER SCOOTER CUTOFF. CONTROLS BOTTLE PRESS. BY CONTROLS BOTTLE PRESS. BY LF DESTRUCTED AFTER 848 SEC S-DOS COSPOSÍTE-FACTORY A. H.	FIRST CONST FIRST CONST EST ACCORDS CONDS AND TA CONDS FA ESOCERE 47	ANY PLOM TO PROPERTY TO PROPE	I CONTROL CHECK VA IEBSURE NAS ZERO. ICH INPACTED APPRO	
WENTELE EFFECT-LOSS OF WENTELE STABILITY. HISBILE S KINATELY SOC MUTICAL MILES DOMBANGE. CORRECTIVE ACTION-NOK. PROFULSION-MS-A/B AKRS-0003-EDOD/FC-CO-01-07 GENERAL FAILURE MOE-OUT OF TOLERANCE. MEASUREHEN: 3374X IN AT 479 SECONDS DUE TO FALLTY EMETHE RELAY BUX SYSTEM EFFECT-COPERATION TOO LONG. PUBSIBLY NO SECO. WENTELE EFFECT-COPERATION TOO LONG. PUBSIBLY BOX. COPRECTIVE ACTION-REPLACED FALLTY ENGINE RELAY BOX. PROPULSION-MS-A/B EMENTE RELAY BOX. RELAY-BU PLIGHT LOCKIN	CONTROLS BOTTLE PRESS. BY LF DESTRUCTED AFTER 848 BEG S-009 COMPOSITE-FACTORY ACATED 3 PERCENT 19M DURING M.	237 afconds (0003 AND TA 2000 FA 830222 47	- 756 PE	IESSURE MAS ZERO. ION INPACTED APPRO	
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Decoite			0 TOE	COMMELL 1 AND S	
M-REPLACE					
H-NEPLACE	RESCHEDULED. POST-COMPOSITE TESTING REQUIRED. POSEIBLE LATE BUSTAINER ENGINE SHUTDOM.	LATE BUSIN	INER ENG	HE SHUTDOM.	
	COMPOSITE-J PACT	1040 34 4£0317 0	344/ETA N	22	682427
FAILURE MODE-FAIL TO CHERATE AT PRESCRIBED TIME. GTR BIMKATCR CABLED CONNECTED TO THE 846 NO. 1 AND NO. 8 RECEPTAC Les mere rewersed union resulted in the Pailure CP the Bustainer Plient Locain Relay to activate thereay biving cuto PT.	BIMKATOR CABLES CONNECTEE E BUSTAINER PLINNT LOCKIN I	TO THE SEC	NO. 1 A	IND NO. E RECEPTAC MERCIAY GEVING CUTO	
BYSTEM EFFECT-OPERATION DOES NOT START.					
WEMICLE EFFECT-COMPOSITE DELAYED. RECYCLE 25 MINUTES.					
CORRECTIVE ACTION-CORRECT JUNPERS.					
PROPULSION-MAS-A/B AAGE-0002/MS-4CBH-07-104/C-1 CENERAL ENGLY BOX, V START AND 8, CIRCUIT	I COMPOSITIE-PROVDEL	1040 36	364/ETR 7	VES ROCKETÖVNE MO	
FAILUNG MODE-PAIL TO OPERATE AT PRESCRIBED TIME, THE EMBINE START TANKS DID NOT YENT WHEN THE BUITCH WAS MANUALLY TEPPED TO WENT, THE CAUSE OF THIS PROBLEM WAS A REDUNDANT JUMPER IN THE EMBINE START AND PRESSURIZE TANKS CIRCUITS.	ATE AT PRESCRIBED TIME. THE ENGINE START TAKES DID NOT WENT WITH THE BUITCH WAS OF THIS PROBLEM WAS A REDUNDANT JUMPER 14 THE ENGINE START AND PRESSURIZE TAKES	VENT WIEN	THE BUILT	TON MAS MANUALLY 6 TANKS CIRCUITS.	

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ORE. NEWTHER DEER NOT START. THE EMBINE START TAMES DID NOT WENT WITH THE BATTCH WAS MANMALLY STEPPED TO ORE. NEWTHER START TAMES OF HODGENTRALLY INTERNATING MISSILE DE PUEZE. REDORG JUNFER AFTES THE PRE 1-21. AARS-ORGENTAL AFTES N-1 DAT PUEL TAMENING LEDAS WERE NOTED BETWEEN THE BOOSTER FAEL PRE-VALVE AND STAR AND AT THE SUSTAINER THESE THE COLAMIT BEARING RELIEF VALVE. DOC ST. BASISST. B. ORGENTAL AFTES THE START OF THE START OF THE SUSTAINER START OF THE SUSTAINER T	3731EH UD-3731EH	TEST/REPORT MUSER FAILED CONFORENT MANE	PART HUMBER	DATE DIF T	11C DIF	ž ō	KINDOR PART NO	
AMBI-DECEMBER OF THE TABLE OF ENGINE OF ENGINE AND TABLE TO THE TABLE AMBI-DECEMBER OF COMMIDDER OF STATE TEST TO THE TABLE OF TABLE OF THE TABLE OF TABL	EFFECT-OPERATION	DOES NOT START. THE ENGINE START TO	ANKS DID NOT VENT W	THE 3HI H3	* * * * * * * * * * * * * * * * * * *	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	404703
AASI-DODO/PA-OR-OD-OP COMIDDE 610EE1 14/ER VED PERVALWE-NAME AND AT THE SUBTRIBES THESINE PUEL COCLANT SECARING RELIEF VALVE. AND AT THE SUBTRIBES THESINE PUEL COCLANT SECARING RELIEF VALVE. AND AT THE SUBTRIBES THESINE PUEL COCLANT SECARING RELIEF VALVE. AND AT THE SUBTRIBES THESINE PUEL COCLANT SECARING RELIEF VALVE. BE-LEAS COSSECTED BY SEPACINE THE GASKET BETWEEN THE PRE-VALVE AND FLANKE AND REPACTING THE SUBTRIBES COCLANT SECARING SELICE VALVE. BE-LEAS COCHANGE AND THE MALIEF PUEL COCLECTION BAG SHOOLE SO NO MALKES WERE COTABLE AND THE NAT THE THE TATA	EFFECT-NO.	START TAKES BY MOMENTARILY INTERRUP	TING MISSILE DE POM	A. REIONE J	¥ 53.	ş	he 1481.	_
AND AT THE SUSTRIES TO BAY PARE, TANKING, LEARS WERE NOTED BETWEEN THE BOODTER FURE, PRE-VALVE AND AT THE SUSTRINGS TO BE SET TO SAME THE SUSTRIES TO SAME THE SUSTRIES TO SAME SET TO SAME THE SUSTRIES TO SAME SET TO SAME SAME SAME SAME SAME SAME SAME SAME	#-143-47B	AA61-D020/P6-402-00-67 PREVALVE-PLANGE	COUNTDOM	E	6.A.18	ទីខ្		:
DOE. COCAMI SCARECTED BY REPLICING THE CAMET BETWEEN THE PRE-VALVE AND FLANKE AND REPLICING THE SUSTAIL COCAMI SCARING RELIEFY VALVE. SHALDER PLANCE BY REPLICING THE COCAMINE OF ETT AT AT SHALL THE WISSEL CHANGE WAS CHANGE AND STORES AND STORES WAS CHANGE BY THE WISSEL CHANGE WAS AT MAXIMAM MISALIEVEDTY. THE VINIT COLLECTION BAG BROKE SO NO VALUES WERE COSTAIN THE FALLES OF AND THE NO PR SALE-ERO.	: MOE-LEAK-EXTER VE FLANGE AND AT		JAS NERE NOTED BETH BEARING RELIEF VALV	EN THE BOOM	3 25	Ĕ	-VALVE AND 87A	
DOE. COOLANT SCARING MELIET VALVE. COOLANT SCARING MELIET VALVE. DISCOBERT VALVE. COOLANT SCARING MELIET VALVE. COOLANT STATISMAL MALINE MELIET VALVE. COCLANT SCARING DISCOBERT VALVE. COCLANT STATISMAL MALINE MELIEVE WITH AS PRIC USING LINE VISIBLE LEALNE WAS CREATED TO SENT SEAL. VALVE WAS AT MALINAM MISALINEEDIT. THE VINT. COLLECTION BAC BROKE SO NO WALVES WERE COTAL LEALNE COCLANGE OF NO WALVES WERE COTAL LEALNE. COLUMN COLUMN CONTRACTOR OF PARTY OF SEAL-2-200.	DFECT-HOIC.							
BELIGNAL GRANDED BY REPLACING THE GAMET BETWEEN THE PRE-VALVE AND FLAME AND REPLACING THE SHIRTING COOLANT SCARING RELIEF VALVE. BEALSON. BEALSON. COOLANT STACKS STOCKS TO AN AS THE CASH COLON STACKS STOCKS TO STACKS STOCKS S	EFECT-HOSE.							
DESTRUCT. LOK STACING DISCONNECT VALVE 27-0244-1-3 NO 3107221/310723 V A-EXTERNAL. DURING DISCONNECT TEST PARK OF ETT AT 43 PRIC URING LINE VISIBAE LEARAGE WAS CREATED T DESTRUCTED AND ALL LEARAGE WAS GREATED T AND ALL LEARAGE OCCUMEND LATER IN TEST. NET SAT 110-1968/201-1004 T.H. NOA. BH-HONG. NET'. RITH FTR HE F-4EST ST AND FIRM NO FR 854-8-260.	THE ACTION-LEAKS	CORRECTED BY REPLACING THE GASHET DEFAILED WALVE.	BETWEEN THE PRE-VALV	R AND PLANS	E AND R	FLAC	ING THE SUSTAI	
DURING DISCONMECT TEST PLASE OF ETT AT AS PRIC USING LUE VISIBLE LEAKAGE WAS VALVES OCCUMEND LATER IN TEST. RET SAM 110-1868/R01-1004 T.H. NOA. F. RITH FTR HE F-4257 ST AND FMR NO FR 854-2-200.	20-1445-A78	DA1987.E LOK STAGING DISCONSECT VALVE	UTP-ETT 27-02240-1/-3	•	0/c	5 5	THICKCL 3107221/310723 V	26206
	MODE-LEAK-EKTER HE DIEAKDENT ME ADDITIONAL LEAR	•	OF ETT AT 41 PRIC UND DIT. THE VINTE COLLE 1110-1561/701-1084	116 LIE V183 1710N BAG BA 1.H. NOA.		3 Q	LINES WERE COTA	
	THE ACTION-NOIC.	. AEF. RIPN FTR HR F-4EST ST AND FIN	NO PR 854-2-250.					1
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